

FILE NO. 5556

REQUEST FOR DESIGN SERVICES
MARTIN LUTHER KING JR. SCHOOL
CAMBRIDGE, MASSACHUSETTS 02139

Sealed proposals will be received at the Office of the Purchasing Agent, Room 303, City Hall, 795 Massachusetts Avenue, Cambridge, Massachusetts 02139 until **11:00 a.m., on THURSDAY, SEPTEMBER 8, 2011** for furnishing the following to the City of Cambridge:

The City of Cambridge invites applications from appropriately qualified and experienced architects to prepare a feasibility study and then design a building for the Martin Luther King, Jr. School located at 100 Putnam Avenue

The proposed project entails the conversion of an existing 159,400 square foot cast in place concrete structure building built in 1971 into a combined K through 5th lower school and an expanded 6 through 8 upper school. Separate entrances and interior spaces are required for each school.

The first deliverable for the project is a feasibility study that shall provide the City a recommendation if the present building is capable of supporting all of the new programming envisioned or should the existing building be demolished and a new building designed. A full zoning analysis shall be part of the study recommendation and a detailed budget estimate.

Copies of the Request for Proposal may be obtained at the Office of the Purchasing Agent on and after **WEDNESDAY, AUGUST 10, 2011** between the hours of 8:30 a.m. and 5:00 p.m. on Mondays, Tuesday thru Thursday, 8:30 a.m. to 5:00 p.m. and 12:00 Noon on Fridays.

The RFP may be downloaded off the City's web site, www.cambridgema.gov Online Services, Purchasing Current Bid List, Designer RFP's.

The successful offeror must be an Equal Opportunity Employer.

The City of Cambridge reserves the right to reject any or all proposals, waive any minor informalities in the proposal process, and accept the proposal deemed to be in the best interest of the City. The City of Cambridge has established or will establish prior to negotiations a not-to-exceed fee.

THERE MUST BE NO MENTION OF THE APPLICANTS FEE IN THE PROPOSAL. ANY MENTION OF THE FEE WILL SUBJECT THE PROPOSAL TO REJECTION.

A pre-proposal meeting and tour of the existing building will take place on Tuesday, August 23, 2011 at 1:00 p.m. at the Martin Luther King Jr. School located at 100 Putnam Avenue, Cambridge, MA.

Questions concerning the Request for Design Services may be submitted in writing by **12:00 Noon, TUESDAY, AUGUST 30, 2011** to Cynthia H. Griffin, at the address above or by fax (617-349-4008). Answers will be sent to all vendors who received the Request for building envelope restoration Design Services through the Purchasing Office.

One original and ten (10) copies of the proposal marked "RFP for Design Services for Martin Luther King Jr. School" must be received by Cynthia H. Griffin, Purchasing Agent, City of Cambridge, 795 Massachusetts Avenue, Cambridge prior to 11:00 a.m., on **THURSDAY, SEPTEMBER 8, 2011**. Any proposals received after such time will not be accepted, unless the date and time has been changed by addendum. Delivery to any other office or department does not constitute compliance with this paragraph, unless the proposals are received by the Purchasing Department by the established deadline. It is the responsibility of the applicant to assure proper and timely delivery.

Cynthia H. Griffin
Purchasing Agent

**CITY OF CAMBRIDGE
REQUEST FOR DESIGN SERVICES
MARTIN LUTHER KING JR. SCHOOL**

SECTION I: SCOPE OF SERVICES

Overview

The City of Cambridge invites applications from appropriately qualified and experienced architects to prepare a feasibility study and then design a building for the Martin Luther King, Jr. School located at 100 Putnam Avenue

The proposed project entails the conversion of an existing 159,400 square foot cast in place concrete structure building built in 1971 into a combined K through 5th lower school and an expanded 6 through 8 upper school. Separate entrances and interior spaces are required for each school.

The first deliverable for the project is a feasibility study that shall provide the City a recommendation if the present building is capable of supporting all of the new programming envisioned or should the existing building be demolished and a new building designed. A full zoning analysis shall be part of the study recommendation and a detailed budget estimate. The Capital Needs Assessment of the King Amigos School (Martin Luther King Jr. School) is incorporated with this document as a reference.

Programming Elements to be considered though not all inclusive for final design:

The building will house approximately 650 students and 60 staff members during the school day.

- Separate entrances for lower and upper schools
- Separate wings for upper and lower schools
- Adequate classrooms for all grades and subject teachers (35-40)
- Three science labs in upper school wing
- Two art rooms
- Two music rooms
- Two Occupational Therapy/Physical Therapy Rooms
- Two computer labs
- Two gym(s) that are large and equipped with dividers
- One auditorium with seating capacity for 700
- One cafeteria for use during and after school that can be subdivided for school and afterschool use
- Adequate and efficient breakout space for tutoring and instructional coaches

- Distinct space for after school programming with separate entry for arrival and departure
- Small conference room for parent conferences for out of school time
- Computer lab for afterschool programs
- Two Pre-school classrooms
- Administrative office space with multiple meeting rooms
- Nurses suite with adequate waiting room
- Teacher lounge and workroom
- Adequate classroom storage space for teachers and afterschool programs
- Multi-purpose space for school and community use that can be subdivided
- Adequate staff parking and bicycle racks for students and staff
- Age appropriate indoor and outdoor play space and equipment
- Wireless capability and current technology equipment for all rooms (ENO Boards, document cameras, etc.)
- Air conditioning in recognition of year round use
- Security systems for entry/exit doors, classroom doors and digital cameras for common areas and entry doors
- Areas to display student work and achievements
- School gardens to be integrated into the classroom

The design team must be multi-disciplinary including specialized consultants familiar with the design of schools as well as consultants with significant experience in traffic and parking, structural and mechanical engineering, interior furnishings and equipment, and cost estimating.

The design team must also have expertise in preparing MGL 149 and MGL 149A construction documents. Presently the City of Cambridge is not decided on which process it will use for bidding the construction.

The City of Cambridge shall be engaging Commissioning services, Licensed Site Professional (LSP) services and Geotechnical services.

Sustainability and Environmental Elements

In its major construction projects, the City of Cambridge seeks to lead by example in reducing and minimizing greenhouse gas emissions and other environmental impacts of its facilities. The City of Cambridge has set a municipal standard of achieving at a minimum a LEED Silver rating for this major municipal building project, therefore the team must include LEED certified architects. A higher LEED rating will be sought if feasible. It should be noted that the Commonwealth's Stretch Energy Code is in effect in Cambridge. The design team should also be qualified to provide within the context of the feasibility study, design options that would create a NET ZERO energy project.

Existing Building Description

This cast in place, reinforced concrete frame building was built in 1971 as a kindergarten through 8th grade school. This two and three story building has a gross square footage of 159,400 square feet. There is a partial mechanical equipment basement with crawls spaces for distribution of mechanical plumbing systems. The column bay spacing is 20'-0" x 20'-0" with a vertical interior clearance of 10'-0". The exterior walls are a combination of grooved CMU walls on pre-cast concrete panels and cast-in-place concrete wall panels. The roof is flat with a single ply membrane and a standing seam metal roof over an atrium.

The landscaping consists of trees, shrubs and plantings. There are approximately 62 parking spaces in surface lots surrounding the property. The surrounding neighborhood is residential with apartment complexes and single family homes.

SECTION II: GENERAL TERMS AND CONDITIONS

1. The contract for this project will be between the City of Cambridge and the consultant, and will be administered by the City Manager's Office. The City has an Owners Project Manager in place for this project who shall be the immediate point of contact for the consultant after the contract for design services is executed.
2. A proposal will remain in effect for a period of 90 calendar days from the deadline for submission of proposals or until it is formally withdrawn, a contract is executed or this RFP is canceled, whichever occurs first. The City reserves the right to reject any and all proposals.
3. The City will have the option to cancel the contract provided that written notice is given 30 days prior to the effective termination date.
4. Any changes or additions to consultants or personnel named in the application must be submitted in writing and approved by the City.
5. The City encourages minority firms to apply, and if subcontractors are used, encourages the use of minority subcontractors. The Purchasing Office can provide assistance to firms wishing to identify minority subcontractors.

SECTION III: INSTRUCTIONS TO OFFERORS

1. One original and ten (10) copies of the proposal marked "Martin Luther King, Jr. School" must be received by Cynthia H. Griffin, Purchasing Agent, City of Cambridge, 795 Massachusetts Avenue, Cambridge prior to 11:00 a.m., Thursday, September 8, 2011. **Please do not submit proposals in hard binders. Submit in simple, flexible and eco friendly binding solution.** Price will be negotiated after finalists have been selected.
2. A pre-proposal meeting and tour of the existing building will take place on Tuesday, August 23, 2011 @ 10 pm at the Martin Luther King Jr. School, 100 Putnam Avenue, Cambridge, MA.
3. All requests for clarification or any questions about information contained in this RFP must be

submitted in writing and addressed to Cynthia H. Griffin, Purchasing Agent, City of Cambridge, City Hall, 795 Massachusetts Avenue, Cambridge, MA 02139. Requests for clarification or questions and responses will be sent to all proposers. All requests for information or questions must be received by **Tuesday, August 30, 2011 by 12:00 Noon**. The name, address, telephone number and FAX number of the person to whom such additional information should be sent must be provided by the offeror.

4. Failure to answer any question, to complete any form or to provide the documentation required will be deemed non-responsive and result in an automatic rejection of the proposal unless the City determines that such failure constitutes a minor informality.

SECTION IV: EVALUATION OF THE PROPOSALS

1. **Proposals:** Each offeror must submit a written proposal to this RFP which includes full and clear descriptions of evaluation criteria outlined in Section VI. A Selection Committee will evaluate each proposal based on these evaluation criteria.
2. **Price Proposal:** Price will not be considered when initially evaluating a proposal. After the finalists have been ranked, the City will enter in price negotiations with the offeror.
3. **References:** References will be contacted to determine if the offeror is responsive and responsible. References will be asked about their overall impression of the offeror, quality of work performed, understanding of factors effecting implementation, and the timeliness of the product. The City and/or its representative may visit up to three comparable projects by each architect to be interviewed.
4. **Interviews:** The Selection Committee may interview no fewer than three finalists to determine if the offeror is responsive and responsible, and meets the needs of the City. The City Manager reserves the right to interview all finalists if he so chooses, after the Selection Committee's deliberations.
5. **Award of Contract:** The City will award one contract to a responsive and responsible offeror. The City reserves the right to reject any and all proposals if it determines that it is in the best interest of the City to do so.

SECTION V: PROPOSAL SUBMISSION REQUIREMENTS

1. Designer Selection Application for Cities and Towns (attached).
2. A list of at least three entities, of which two must be in the public sector, for which you have conducted similar designs of school for the grades identified including renovation and new construction. Please include the name and telephone number of the contact person at each, the year of the contract, and the nature of the project. These contacts shall serve as references. Also, include no less than three personal references of the key members assigned to the project, also from former clients. Such references will be used to determine an offeror's responsibility. It is very important that these references contact numbers are accurate as the City of Cambridge shall be contacting these references. If there is no person at the number or no one returns our call then you firm will not have

these needed references.

3. Resumes of key staff who will be assigned to this project, with a description of responsibilities. Identification of additional consultants needed for the duration of the project is important.

SECTION VI: EVALUATION CRITERIA

The purpose of information requested in this section is to assist the City in evaluating the offeror's overall qualifications, including its methodologies and technical abilities, and previous experience.

1. Experience and design approach demonstrated both by the firm and the proposed design Team in conducting community processes, and the design of similar school buildings in a tight urban environment. The proposal shall include references to other school projects the Design team has completed together in the past.
2. Quality of work, as determined by references from other school projects on which the firm and consultants have worked together on. How the Design Team is managed so that the design is properly coordinated before it is placed out to bid is a major consideration for the City of Cambridge. How the Design Team approaches the project to determine the best way to integrate programming, stay within budget, and manage cost control during the design phase will be evaluated as well.
3. Professional registrations: The firm has the professional licenses required to execute this project.
4. Design Team/Consultants: The qualifications and track record of each member of the design team and key consultants will be rated as well. Offeror's shall identify qualifications of team members and consultants who will work on this project, including professional registrations when required. It is very important to the City of Cambridge that Design team members submitted are the staff members who will be working on the project if selected. The availability of each key team member must be adequate to support project coordination and the design schedule. The Architect and Consultants shall be required to present their cost analysis system of evaluating change orders. The type of Industry standard software used by the MEP consultants to evaluate change orders should be identified.
5. Capacity to perform: The firm(s) capacity to undertake this project in a timely manner to meet the City of Cambridge schedule. This evaluation will be based on the size of the firm gauged against the number and size of current projects.

**CITY OF CAMBRIDGE
REQUEST FOR PROPOSALS
ANTI-COLLUSION/ TAX COMPLIANCE STATEMENT**

The undersigned certifies under penalty of perjury that this proposal has been made and submitted in good faith and without collusion or fraud with any person. As used in this certification, "person" shall mean any natural person, business, partnership, corporation, union, committee, club or other organization, entity or group of individuals.

As required by M.G.L. Chapter 62C, Section 49A, the undersigned further certifies under penalty of perjury that the bidder has complied with all laws of the Commonwealth of Massachusetts relating to taxes, reporting of employees and contractors, and withholding and remitting child support".

Signature

Name and title of person signing proposal

Date

Name of business

Address

Return this form with your proposal

CITY OF CAMBRIDGE

**DESIGNER'S/ENGINEER'S OR CONSTRUCTION MANAGER'S
TRUTH-IN-NEGOTIATIONS CERTIFICATE**

For Negotiated Fees

The undersigned hereby certifies under the penalties of perjury that the wage rates and other costs used to support its compensation are accurate, complete and current at the time of contracting.

The undersigned agrees that the original contract price and any additions to the contract may be adjusted within one year of completion of the contract to exclude any significant amounts if the City determines that the fee was increased by such amounts due to inaccurate, incomplete or noncurrent wage rates or other costs.

BY: _____

Name and Title: _____

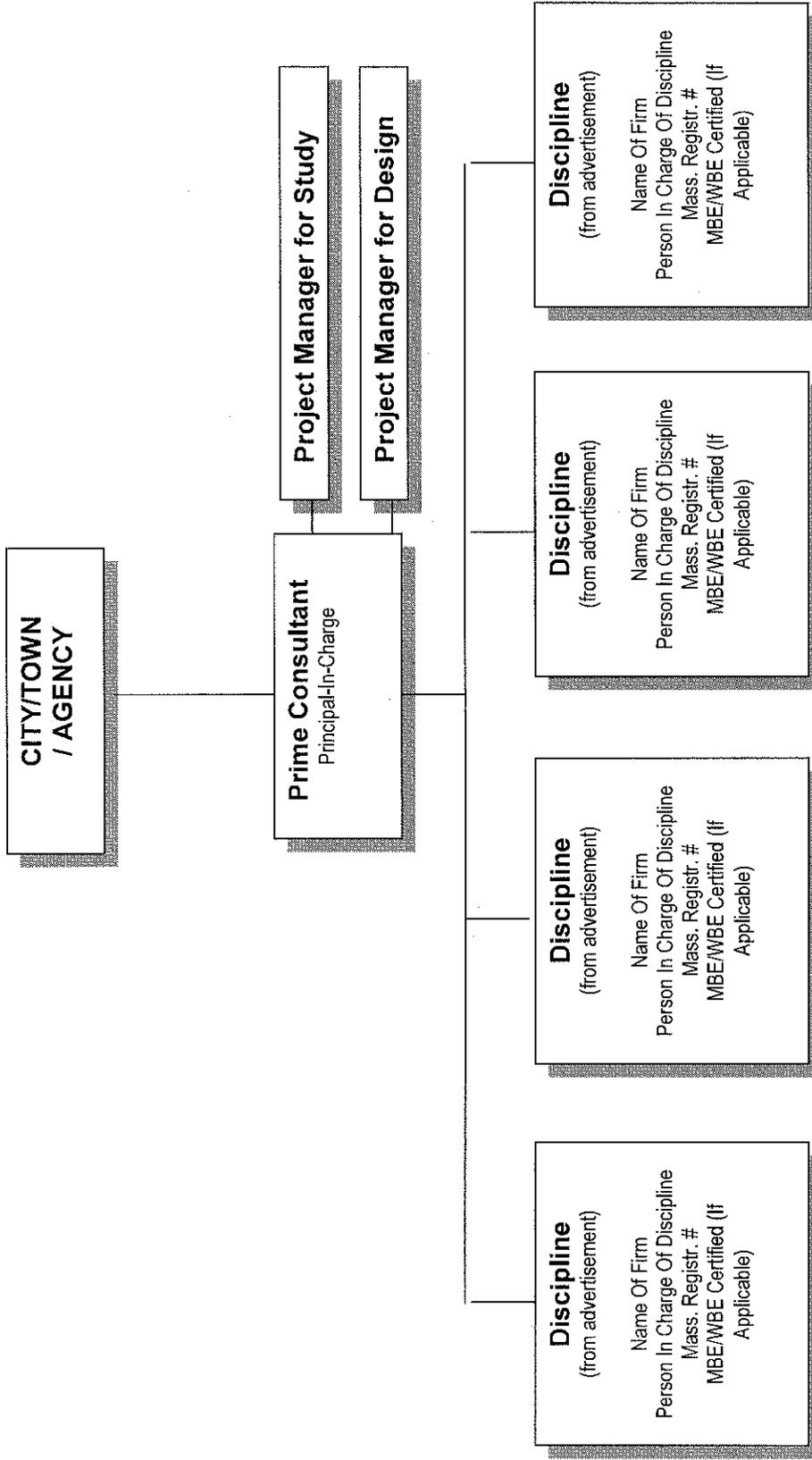
Project: _____

Date: _____

Reference: M.G.L. c. 7, §38H (b)

Return this form with your proposal

6. List **ONLY** those Prime and Sub-Consultant Personnel Specifically Requested In The Advertisement. This Information Should Be Presented Below In The Form Of An Organizational Chart. Include Name Of Firm And Name Of The One Person In Charge Of The Discipline, With Mass. Registration Number, As Well As MBE/WBE Status, If Applicable:



<p>7. Brief Resume Of ONLY Those Prime Applicant And Sub-Consultant Personnel Requested In The Advertisement. Confine Responses To The Space Provided On The Form And Limit Resumes To ONE Person Per Discipline Requested In The Advertisement. Resumes Should Be Consistent With The Persons Listed On The Organizational Chart In Question # 6. Additional Sheets Should Be Provided Only As Required For The Number Of Key Personnel Requested In The Advertisement And They Must Be In The Format Provided. By Including A Firm As A Sub-Consultant, The Prime Applicant Certifies That The Listed Firm Has Agreed To Work On This Project, Should The Team Be Selected.</p>	
a. Name And Title Within Firm:	a. Name And Title Within Firm:
b. Project Assignment:	b. Project Assignment:
c. Name And Address Of Office In Which Individual Identified In 7a Resides: <input type="checkbox"/> MBE <input type="checkbox"/> WBE	c. Name And Address Of Office In Which Individual Identified In 7a Resides: <input type="checkbox"/> MBE <input type="checkbox"/> WBE
d. Years Experience: With This Firm: _____ With Other Firms: _____	d. Years Experience: With This Firm: _____ With Other Firms: _____
e. Education: Degree(s) /Year/Specialization	e. Education: Degree(s) /Year/Specialization
f. Active Registration: Year First Registered/Discipline/Mass Registration Number	f. Active Registration: Year First Registered/Discipline/Mass Registration Number
g. Current Work Assignments And Availability For This Project:	g. Current Work Assignments And Availability For This Project:
h. Other Experience And Qualifications Relevant To The Proposed Project: (Identify Firm By Which Employed, If Not Current Firm):	h. Other Experience And Qualifications Relevant To The Proposed Project: (Identify Firm By Which Employed, If Not Current Firm):

8a. Current And Relevant Work By Prime Applicant Or Joint-Venture Members. Include ONLY Work Which Best Illustrates Current Qualifications In The Areas Listed In The Advertisement (List Up To But Not More Than 5 Projects).					
a. Project Name And Location Principal-In-Charge	b. Brief Description Of Project And Services (Include Reference To Relevant Experience)	c. Client's Name, Address And Phone Number (Include Name Of Contact Person)	d. Completion Date (Actual Or Estimated)	e. Project Cost (In Thousands)	
				Construction Costs (Actual, Or Estimated If Not Completed)	Fee for Work for Which Firm Was Responsible
(1)					
(2)					
(3)					
(4)					
(5)					

8b. List Current And Relevant Work By Sub-Consultants Which Best Illustrates Current Qualifications In The Areas Listed In The Advertisement (Up To But Not More Than 5 Projects For Each Sub-Consultant). Use Additional Sheets Only As Required For The Number Of Sub-Consultants Requested In The Advertisement.

Sub-Consultant Name:	a. Project Name And Location Principal-In-Charge	b. Brief Description Of Project And Services (Include Reference To Relevant Experience	c. Client's Name, Address And Phone Number. Include Name Of Contact Person	d. Completion Date (Actual Or Estimated)	E. Project Cost (In Thousands)	
					Construction Costs (Actual, Or Estimated If Not Completed)	Fee For Work For Which Firm Was/Is Responsible
(1)						
(2)						
(3)						
(4)						
(5)						

9. List All Projects Within The Past 5 Years For Which Prime Applicant Has Performed, Or Has Entered Into A Contract To Perform, Any Design Services For All Public Agencies Within The Commonwealth.						
Role P, C, JV *	Phases St., Sch., D.D., C.D., A.C.*	Project Name, Location And Principal-In-Charge	Awarding Authority (Include Contact Name And Phone Number)	Project Cost (In Thousands)	Completion Date (Actual or Estimated) (R)Renovation or (N)New	
		1.				
		2.				
		3.				
		4.				
		5.				
		6.				
		7.				
		8.				
		9.				
		10.				
		11.				
		12.				

10. Use This Space To Provide Any Additional Information Or Description Of Resources Supporting The Qualifications Of Your Firm And That Of Your Sub-Consultants For The Proposed Project. If Needed, Up To Three, Double-Sided 8 1/2" X 11" Supplementary Sheets Will Be Accepted. **APPLICANTS ARE REQUIRED TO RESPOND SPECIFICALLY IN THIS SECTION TO THE AREAS OF EXPERIENCE REQUESTED IN THE ADVERTISEMENT.**

11. Professional Liability Insurance:
 Name of Company _____ Aggregate Amount _____ Policy Number _____ Expiration Date _____

12. Provide A List Of All Projects On Which Monies Were Paid By You, Or On Your Behalf, As A Result Of Professional Liability Claims Occurring Within The Last 7 Years And In Excess Of \$50,000 Per Incident. Please Include Project, Client Names And Explanation. (Attach Separate Sheet If Necessary):

Name	Title	MA Reg #	Status/Discipline	Name	Title	MA Reg #	Status/Discipline
a.				d.			
b.				e.			
c.				f.			

14. If Corporation, Provide Names Of All Members Of The Board Of Directors:

Name	Title	MA Reg #	Status/Discipline	Name	Title	MA Reg #	Status/Discipline
a.				d.			
b.				e.			
c.				f.			

15. Names Of All Owners (Stocks Or Other Ownership):

Name And Title	% Ownership	MA Reg.#	Status/Discipline	Name And Title	% Ownership	MA Reg.#	Status/Discipline
a.				d.			
b.				e.			
c.				f.			

16. I hereby certify that the undersigned is an Authorized Signatory of Firm and is a Principal or Officer of Firm. I further certify that this firm is a "Designer", as that term is defined in Chapter 7, Section 38A12 of the General Laws, or that the services required are limited to construction management or the preparation of master plans, studies, surveys, soil tests, cost estimates or programs. The information contained in this application is true, accurate and sworn to by the undersigned under the pains and penalties of perjury.

Submitted by _____ Printed Name and Title _____ Date _____
 (Signature)

**AGREEMENT FOR DESIGNER SERVICES
BETWEEN
THE CITY OF CAMBRIDGE
AND
THE ARCHITECT**

This Agreement made on the _____ is between the City of Cambridge ("the **City**"), City Hall, 795 Massachusetts Avenue, Cambridge, MA 02139 and _____ ("the **Architect**") located at _____

for the services described herein and in the attached APPENDIX A, Request for Proposals ("RFP").

The **City** and the **Architect** agree to the following:

ARTICLE 1

DEFINITIONS

1.1. In General.

1.1.1. Well-known meanings. When words or phrases which have a well-known technical or construction industry or trade meaning are used herein, such words or phrases shall be interpreted in accordance with that meaning, unless otherwise stated.

1.1.2. Capitalization. The words and terms defined in this Article are capitalized in this Agreement. Other capitalized words may refer to a specific document found in the Contract Documents or may be defined in the General Terms and Conditions of the Contract.

1.1.3. Persons. Whenever the word person or persons is used, it includes, unless otherwise stated, entity or entities, respectively, including, but not limited to, corporations, partnerships, and joint venturers.

1.1.4. Singular and Plural. The following terms have the meanings indicated which are applicable to both the singular and the plural thereof.

1.2. Definitions.

1.2.1. Agreement - The Agreement is this written document between the **City** and the **Architect** which is titled: Agreement for Designer Services between the City Of Cambridge and the **Architect**, which is the executed portion of the Contract, and which forms a part of the Contract. The Agreement also includes all documents required to be attached thereto, including, but not limited to, certificates of insurance and all modifications of the Agreement.

1.2.2. Change Order - A Change Order is a document which is signed by the Contractor and the **City** which is directed to the Contractor and which authorizes the Contractor to make an addition to, a deletion from, or a revision in the Work, or an adjustment in the sum or in the time of the Contract issued on or after the date of the Contract.

1.2.3. Construction Cost - The Construction Cost is the total cost or estimated cost to the **City** of all elements of the Project designed or specified by the **Architect**. The Construction Cost shall include

the cost of labor at current prevailing wage rates established by the Commonwealth and furnished by the **City**, materials and equipment designed, specified, selected, or specially provided for by the **Architect**, plus a reasonable allowance for the overhead and profit. In addition, a reasonable allowance for contingencies shall be included for market conditions at the time of bidding and for changes in the Work during construction. Construction Cost does not include the compensation of the **Architect** and the **Architect's** consultants, the costs of the land, rights-of-way, financing, or other costs which are the responsibility of the **City** as provided herein.

1.2.4. Construction Documents - The Construction Documents consist of Plans and Specifications setting forth in detail the requirements for the construction of the Project.

1.2.5. Contract Documents - The Contract Documents consist of the Agreement between the City and the Contractor; the notice of award of the Contract; the Notice to Proceed; the entire Project Manual; Change Orders; Work Change Directives; the Contractor's Bid and all accompanying documents accepted by the City; and the **Architect's** written interpretations and clarifications issued on or after the issuance of the Notice to Proceed.

1.2.6. Contract - The Contract consists of all the Contract Documents.

1.2.7. Contractor - The Contractor is the person who is awarded the construction contract for the Project pursuant to M.G.L. c. 149, §§44A-H, inclusive, and is identified in the Agreement as such. The term "Contractor" is intended to include the Contractor as well as its authorized representative(s).

1.2.8. General Terms And Conditions Of The Contract - General Terms and Conditions of the Contract refers to the General Terms and Conditions of the Contract between the City and the Contractor.

1.2.9. Product Data - Product Data are illustrations, standard schedules, performance charts, instructions, brochures, diagrams, and other information furnished by the Contractor to illustrate materials or equipment for some portion of the Work.

1.2.10. Project - The Project is the total construction of which the Work to be provided under the Contract Documents may be the whole or a part of the Project as indicated elsewhere in the Contract Documents and may include construction by the **City** or by separate contractors. The Project is the Work described in the invitation to bid and Specifications, and illustrated by the Plans.

1.2.11. Proposed Change Order - A Proposed Change Order is a Change Order that has not been approved by the **City**.

1.2.12. Reimbursable Expenses - Reimbursable Expenses are in addition to compensation for Basic and Additional Services and include expenses incurred by the **Architect** in the interest of the Project, as identified by the following: long distance calls and faxes; fees paid for securing approval of authorities having jurisdiction over the Project; reasonable expense of reproduction necessary for the rendition of services hereunder, which expense shall not include the expense of producing the sets of documents referred to in the Schematic Design Phase, the Design Development Phase, and the Construction Document Phase herein, as these expenses are covered in the **Architect's** compensation for Basic Services; expense of postage and such other expenses incurred in connection with the Project when specifically authorized in advance in writing by the **City**. Payment for photocopying letter or legal size documents shall not exceed 10¢ per page. Payment for all other documents shall be at cost.

1.2.13. Samples - Samples are physical examples of materials, equipment, or workmanship that are representative of some portion of the Work and which establish the standards by which such portion of

the Work will be judged.

1.2.14. Shop Drawings - Shop Drawings are all drawings, diagrams, illustrations, schedules, and other information which are specifically prepared or assembled by or for the Contractor and submitted by the Contractor to illustrate some portion of the Work.

1.2.15. Statement of Probable Construction Costs - The Statement of Probable Construction Costs is a preliminary, detailed estimate of Construction Cost based on current area, volume, or other unit costs. Such estimate shall indicate the cost of each category of work involved in constructing the Project (including, but not limited to, filed sub-trades) and shall establish the period of time for each category from the commencement to the completion of the construction of the Project. The detailed estimate shall include quantities of all materials and unit prices of labor and material, as well as a cost estimate containing individual line items for each item of work.

1.2.16. Substantial Completion - Substantial Completion means that the Work has been completed and opened to public use, except for minor incomplete or unsatisfactory items that do not materially impair the usefulness of the Work. The **Architect** shall decide what constitutes "minor," "incomplete," "unsatisfactory," and "materially" and the **Architect's** decision shall be final.

1.2.17. Work Change Directive - A Work Change Directive is a written directive to the Contractor issued on or after the date of the contract between the **City** and the Contractor and signed by the **City** and recommended by the **Architect** ordering an addition to, a deletion from, or a revision in the Work.

1.2.18. Work - The Work means the construction and services required by the Construction Documents, whether completed or partially completed, and includes all other labor, materials, equipment, and services provided or to be provided by the Contractor to fulfill its obligations. The Work may constitute the whole or a part of the Project.

ARTICLE 2

THE ARCHITECT'S RESPONSIBILITIES

2.1. STANDARD OF PERFORMANCE. The Architect shall perform the services under this Agreement with the skill, care, and diligence in accordance with the high level of professional standards prevailing in the greater Boston area for the type of construction required herein. All of the **Architect's** services under this Agreement shall be performed as expeditiously as is consistent with such standards. The **Architect** shall be responsible in accordance with those standards for the adequacy, safety, and overall integrity of the Project's design, including, but not limited to, the architectural, structural, mechanical, and electrical design of the Project.

As a requirement of contract with the City of Cambridge, the design team and all consultants must agree not to engage in any design services for the general contractor or filed sub-bidders including any tier sub-bidders of either relating to this project. It is a contract requirement that the Architect include this language with all of their consultant contracts and provide verification to the City of Cambridge Purchasing Department that all parties agree to these terms.

2.2. SCHEDULE OF PERFORMANCE. Upon request of the **City**, the **Architect** shall submit for the **City's** approval a schedule for the performance of the **Architect's** services, which schedule shall be attached hereto as APPENDIX B. The time limits established by the schedule approved by the **City** shall not be exceeded by the **Architect**, except as otherwise provided herein. Time is of the essence and

time periods established by the attached APPENDIX B shall not be exceeded by the **Architect** except for delays due to causes outside the **Architect's** control (which term shall not include staffing problems, insufficient financial resources, consultant's default, or negligent errors or omissions on the part of either the **Architect** or any of its consultants).

2.3. TIMELINESS OF INTERPRETATIONS, CLARIFICATIONS, AND DECISIONS. With regard to all phases of this Agreement, the **Architect** shall render interpretations, clarifications, and decisions in a timely manner pertaining to documents submitted by the **City** or the Contractor in order to avoid unreasonable delay in the orderly and sequential progress of the **Architect's** services.

2.4. RELATIONSHIP WITH THE CITY. For the purposes of this Agreement, the **Architect** shall be a representative of the **City** and shall advise and consult with the **City** until the termination of the Contractor's warranty and correction period.

ARTICLE 3

SCOPE OF THE ARCHITECT'S BASIC SERVICES

3.1. IN GENERAL.

3.1.1. The **Architect's** Basic Services shall consist of:

3.1.1.1. those services identified below within the different phases;

3.1.1.2. any other professional services which are reasonably necessary as determined by the **City** for the design and administration of construction of the Project, including, without limitation, the following:

3.1.1.2.1. all surveys, geotechnical services, testing services, and related information and reports reasonably required by the Project, geotechnical and civil engineers; landscape architect; independent cost estimator; fire protection, life safety, lighting, interior design, asbestos removal, and movable equipment consultants; and normal structural, mechanical, and any other engineering services necessary to produce a complete and accurate set of Construction Documents (the cost for any and all professional services is not subject to profit adjustments);

3.1.1.3. attending and providing testimony at any formal or informal hearings related to the Project, including, but not limited to, bid protest hearings and City Council meetings, if deemed necessary by the **City**. If the **Architect** is called as a witness in a court of competent jurisdiction in a matter in which the **Architect** is a named party, the **Architect** will not be additionally compensated. If the **Architect** is called by the **City** as a witness in a matter in a court of competent jurisdiction in which the **Architect** is not a named party, the **Architect** will be compensated according to APPENDIX C attached hereto;

3.1.1.4. preparing for and appearing on the **City's** behalf at all administrative or regulatory hearings, presentations, or conferences with respect to any zoning, building code, urban renewal, or other matters in connection with the Project, including, without limitation, any hearings, presentations, or conferences with any City, State, or Federal agencies or officials and any neighborhood groups. The **Architect's** obligations under this paragraph shall include preparing plans and other materials reasonably required in connection with any such hearings, presentations, and conferences;

3.1.1.5. assisting the **City** in connection with the **City's** responsibility for filing documents required for the approval of governmental authorities having jurisdiction over the Project. The **Architect** shall prepare the Plans and Specifications required in order to obtain approval of, and in accordance with, all requirements of all governmental agencies having jurisdiction over the Project. Any Plans and Specifications furnished by the **Architect** which are discovered to be defective during any Phase will be promptly corrected by the **Architect** at no cost to the **City**, and the **Architect** will promptly reimburse the **City** for all damages, if any, resulting from the use of such defective Plans and Specifications. The **City's** approval, acceptance, use of or payment for all or any part of the **Architect's** services shall in no way alter the **Architect's** obligations or the **City's** rights hereunder; and

3.1.1.6. all design and redesign services required within or between the Design Development Phase and the Construction Documents Phase to keep the Construction Cost of the Project within the fixed limit of Construction Cost.

3.1.2. As part of the Basic Services, the **Architect** shall prepare record drawings in accordance with the following:

3.1.2.1. Record Keeping.

3.1.2.1.1. As the Construction Phase progresses, the **Architect** shall maintain four separate sets of in-progress record drawings (blueline or blackline) at the Site, one set each for mechanical, electrical, plumbing, and architectural/structural disciplines. All deviations from the Construction Documents and the exact locations of the Work as installed and constructed shall be neatly and accurately indicated. Work completed to date shall be colored and highlighted.

3.1.2.2. Permanent Record Drawing Preparation.

3.1.2.2.1. The **Architect** shall transfer the information contained on the in-progress record drawings to wash-off mylar transparencies of the original contract drawings. All work shall be performed by experienced and knowledgeable draftspersons using the same standards and quality of drafting as used on the original drawings.

3.1.2.3. Review of Record Drawings at Substantial Completion.

3.1.2.3.1. Upon Substantial Completion of the Work or portions thereof, the **Architect** or Engineer of record shall review and approve the above permanent record drawings.

3.1.2.4. Submission to the **City**.

3.1.2.4.1. The following shall be submitted to the **City** no later than the date of Substantial Completion:

3.1.2.4.1.1. A complete set of original Construction Documents on mylar and also on disk in AutoCad format.

3.1.2.4.1.2. Permanent record drawings as described above on mylar with the seal of the **Architect** or Engineer of record.

3.1.2.4.1.3. One set of blueline prints of the above.

3.1.2.4.1.4. Four sets of in-progress record drawings.

3.2. SCHEMATIC DESIGN PHASE.

3.2.1. **Commencement.** The Schematic Design Phase begins upon the full execution of this Agreement.

3.2.2. **Written Program.** The **Architect** in consultation with the **City** and any other persons designated by the **City** shall develop a written program for the Project to ascertain the **City's** needs and to establish the requirements of the Project.

3.2.3. **Preliminary Evaluation.** The **Architect** shall provide a preliminary evaluation of the **City's** program, schedule, and construction budget requirements, each in terms of the other.

3.2.4. **Alternative Approaches.** The **Architect** shall review with the **City** alternative approaches to the design and construction of the Project.

3.2.5. **Schematic Design Documents.** The **Architect** shall prepare, for approval by the **City**, Schematic Design Documents consisting of drawings and other documents illustrating the scale and relationship of Project components. Based upon the program approved by the **City**, as well as schedule and construction budget requirements, the Schematic Design Documents shall comply with all applicable laws, statutes, ordinances, codes, orders, rules, and regulations.

3.2.6. **Independent Cost Estimators.** As part of the Basic Services and when requested by the **City**, the **Architect** shall retain the services of an independent cost estimator whose responsibilities shall include without limitation all cost estimates described in this Agreement, estimates of the cost of Proposed Change Orders and assistance in establishing a Change Order budget, and review and confirmation of the Contractor's cost estimates.

3.2.7. **Statement of Probable Construction Costs.** The **Architect** shall submit to the **City** a Statement of Probable Construction Costs.

3.2.8. **Life-Cycle Cost Estimates.** If this Agreement includes architectural services necessary for the preliminary design of a new building or for the modification or replacement of an energy system in an existing building, life-cycle cost estimates for the Project shall be obtained at an initial stage and as a Basic Service. (*Reference: M.G.L. c. 149, §44M*).

3.3. DESIGN DEVELOPMENT PHASE.

3.3.1. **Commencement.** The Design Development Phase begins upon the **City's** written approval of the **Architect's** Schematic Design Documents.

3.3.2. **Preparation of Design Development Documents.** Based on the approved Schematic Design Documents and any adjustments authorized by the **City** in the program, schedule, or construction budget, the **Architect** shall prepare, for approval by the **City**, Design Development Documents consisting of drawings and other documents to fix and describe the size and character of the

Project as to architectural, structural, mechanical, and electrical systems; materials; and such other elements as may be appropriate. The Design Development Documents shall be complete and unambiguous and shall comply with all applicable laws, statutes, ordinances, codes, orders, rules, and regulations.

3.3.3. Adjustment to Statement of Probable Construction Cost. The **Architect** shall advise the **City** in writing of any adjustments to the Statement of Probable Construction Cost prior to the commencement of the Construction Document Phase. The approved adjustment of the Statement of Probable Construction Cost or the Statement of Probable Construction Cost, if there is no adjustment, shall constitute a fixed limit of Construction Cost as that term is used herein. Such fixed limit, once established, shall be adjusted only by written agreement of the **City** and the **Architect**, or as otherwise provided herein.

3.4. CONSTRUCTION DOCUMENT PHASE.

3.4.1. Commencement. The **Architect's** responsibility to provide Basic Services for the Construction Document Phase under this Agreement commences with the **City's** acceptance and approval of the Design Development Documents and ends on the date the Bidding and Award Phase commences.

3.4.2. Preparation of Plans and Specifications. Based on the approved Design Development Documents and any further adjustments in the scope or quality of the Project or in the construction budget authorized by the **City**, the **Architect** shall prepare, for approval by the **City**, Plans and Specifications setting forth in detail the requirements for the construction of the Project.

3.4.3. Preparation of Additional Bidding Information. The **Architect** shall assist the **City** in preparing the bidding documents when requested by the **City**.

3.4.4. City-Generated Forms and Documents. The **City** shall provide the **Architect** with copies of all **City**-generated forms and documents intended to be included in the Project Manual. The **Architect** will include these forms and documents in its Project Manual. It is the responsibility of the **Architect** to ensure that all such documents are included in the final Project Manual. Any costs incurred as a result of the failure of the **Architect** to include any such documents will be borne by the **Architect** and not charged to the **City**, where such failure is the fault of the **Architect**. The **Architect** may propose changes to these **City**-generated forms and documents; however, implementation of such changes are subject to the unilateral approval of the **City**. No changes may be made to such documents without the prior written consent of the **City**. The **Architect** shall prepare and submit to the **City** for approval the entire Project Manual. The **Architect** is responsible for ensuring that the Construction Documents comply with all statutory requirements. The **Architect** will cause the printing of the Project Manuals unless the **City** instructs the **Architect** otherwise. The Project Manuals shall be printed on paper with a minimum of 30% post consumer content. The cost of producing such Project Manuals will be passed onto the **City** at cost.

3.4.5. Addenda. All addenda shall be issued by the Purchasing Agent; however, at the Purchasing Agent's sole discretion, the **Architect** may be called upon to prepare a draft of any such addenda. Any corrections to the Construction Documents which require an addendum will be made by the **Architect** at no charge to the **City**.

3.4.6. Printing of Project Manual. The **Architect** must provide the **City** with a final draft of the Project Manual and obtain approval from the **City** prior to printing. Any changes required to be made to the Construction Documents as a result of errors by the **Architect** or persons within its control

will be promptly corrected at no cost to the **City**. The **Architect** shall make its best efforts to print Project Manuals on paper containing a minimum of thirty percent (30%) post consumer content.

3.4.7. Packaging the Project Manual. The **Architect** will require the printer of the Project Manual to wrap each set of Plans in a brown wrapper, or, if the Plans are small in number, fold each set of Plans and insert one set into each Project Manual.

3.4.8. Delivery of Project Manual. The **Architect** will use its best efforts to ensure that the Purchasing Department receives the number of Project Manuals requested by the Purchasing Department no later than 3:00 p.m. on the day prior to the first day of advertisement of the Invitation to Bid.

3.4.9. Adjustment to Statement of Probable Construction Cost. The **Architect** shall advise the **City** in writing of any adjustments to Statement of Probable Construction Cost indicated by changes in requirements or general market conditions.

3.5. BIDDING AND AWARD PHASE.

3.5.1. Commencement. The Bidding and Award Phase commences on the date the Invitation to Bid is first advertised pursuant to M.G.L. c. 149, §44J and ends on the date the Construction Phase begins.

3.5.2. Additional Bidders. The **Architect** shall assist the **City** in obtaining bids if, in the opinion of the Purchasing Agent, an insufficient number of persons requested the Project Manual. The **Architect** will notify "eligible" and "responsible" persons (as those terms are defined in the M.G.L. c. 149, §44A) of the Invitation to Bid.

3.5.3. When Lowest Bid Exceeds Total Construction Cost. If the lowest bona fide bid by a Contractor exceeds the total construction cost of the Project as set forth in the approved Statement of Probable Construction Costs by more than ten percent (10%), then upon the request of the **City**, the **Architect** will revise the Plans and Specifications in consultation with the **City** to reduce or modify the quality or quantity, or both, of the Work so that the total construction cost of the Project will not exceed the total construction cost set forth in the Statement of Probable Construction Costs by more than ten percent (10%). All revisions pursuant to this paragraph shall be at the **Architect's** sole cost and expense (which cost and expense include, but are not limited to the **Architect's** time, the cost of reprinting the Project Manual, and the cost of readvertisement of the Project).

3.5.4. Pre-Bid Conferences. The **Architect** shall attend all prebid conferences.

3.5.5. Investigation of Bidders. The **Architect** shall investigate, at minimum, the lowest Bidder. The investigation shall include, but is not limited to, reviewing the files maintained by the Division of Capital Asset Management, or any other governmental agency charged with maintaining such documents related to such Bidder, telephoning or writing owners of the Bidder's prior projects, telephoning or writing architects from such prior projects, visiting the sites of such other projects and checking all other appropriate references. The **Architect** shall provide the **City** with a detailed letter of recommendation of approval or disapproval of such Bidder. The letter must include relevant language from the appropriate state laws regarding the eligibility and responsibility of Bidders (i.e., M.G.L. c.149, §44A(1), or, if appropriate, M.G.L. c. 29, §29F). If the **Architect** recommends disapproval of the lowest Bidder, then the **Architect** must investigate the next lowest Bidder in the same manner described above, and continue to investigate each successive low Bidder until a Bidder is approved. For every Bidder investigated, the **Architect** must provide the **City** with a detailed letter as described above.

3.5.6. Preparation of Contract. To the extent required, the **Architect** shall assist the Purchasing Agent in the preparation of the construction contract.

3.6. CONSTRUCTION PHASE-ADMINISTRATION OF THE CONSTRUCTION CONTRACT.

3.6.1. Commencement. The Construction Phase commences with the full execution of the contract for construction and terminates on the date of expiration of all of the guarantees and warranties provided by the Contractor to the **City**.

3.6.2. Change in Architect's Duties, Etc. Construction Phase duties, responsibilities, and limitations of authority of the **Architect** shall not be extended without written agreement of the **City** and the **Architect**. Any restrictions or modifications to the **Architect's** duties and responsibilities can be imposed by the **City** without the consent of the **Architect**.

3.6.3. Preconstruction Conferences. The **Architect** shall attend all preconstruction conferences.

3.6.4. Site Visits. The **Architect** shall visit the Site at intervals appropriate to the stage of construction, but no less than once a week, or as otherwise agreed by the **City** and the **Architect**, to become familiar with the progress and quality of the Work and to determine with care if the Work is proceeding in accordance with the requirements of the Contract Documents. The **Architect** shall cause its engineering and other consultants to make similar Site visits, at such times as may be required for observation of portions of the Work designed and/or specified by them. The **Architect** shall not be required to make continuous on-site inspections to check the quality or quantity of the Work. The **Architect** shall promptly submit to the **City** a detailed written report subsequent to each on-site visit, which shall include any observation of material deviations by the Contractor or subcontractors from the requirements of the Contract Documents.

3.6.5. Job Meetings. There shall be no less than one job meeting per week. The **Architect** shall attend all job meetings. The number of meetings per week will depend on the complexity of the Project at a particular stage, the problems encountered on the Project, or the **City's** request that additional meetings be held. The **Architect** shall also be required to be present when governmental authorities having jurisdiction over the Project visit the Site to inspect the Work. The **Architect** will exercise good care and diligence in discovering and promptly reporting to the **City**, as well as to the Contractor, any defects or deficiencies in the Work.

3.6.6. Construction Means, Methods, Etc. The **Architect** shall not have control over or charge of and shall not be responsible for construction means, methods, techniques, sequences, or procedures, or for safety precautions and programs in connection with the Work. However, the **Architect** shall promptly report to the **City** any perceived irregularities.

3.6.7. Contractor's Schedule. Except as otherwise provided in this Agreement, the **Architect** shall not be responsible for the Contractor's schedules or failure to carry out the Work in accordance with the Contract Documents, except to the extent that such failure is caused by the **Architect**. Except as otherwise provided in this Agreement, the **Architect** shall not have control over or charge of acts or omissions of the Contractor, its Subcontractors, or their agents or employees, or of any other persons performing portions of the Work. However, nothing in this paragraph shall relieve the **Architect** of its obligations to the **City** elsewhere in this Agreement. The **Architect** shall review all schedules presented by the Contractor and advise the **City** as to the appropriateness of same.

3.6.8. Communications. The **City** and the Contractor may communicate through the

Architect. Communications by and with the **Architect's** consultants shall be through the **Architect**, unless the **City** deems it necessary or expedient to speak directly to the consultants.

3.6.9. Applications and Certifications for Payment. Based on the **Architect's** observations of the Work and evaluations of the Contractor's applications for payment, the **Architect** shall review and certify the appropriate amounts due the Contractor within five (5) business days after receipt of the Contractor's application for payment, and such certifications shall be in the form requested by the **City**. The **Architect's** certification for payment shall constitute a representation to the **City** based on the **Architect's** observations at the site and on the data comprising the Contractor's application for payment that the Work has progressed to the point indicated and the quality of Work is in accordance with the Contract Documents. The foregoing representations are subject to minor deviations from the Contract Documents correctable prior to completion and to specific qualifications expressed by the **Architect**. The **Architect** is required to review and validate the certified payrolls. The **Architect** is required to reconcile the applications for payment with the certified payrolls. The issuance of a certificate for payment shall further constitute a representation that the Contractor is entitled to payment in the amount certified. Timely payment of Contractor is required by M.G.L. c. 30, §39K; therefore, the **Architect** shall establish office procedures assuring either immediate mail or messenger delivery of the approved applications for payment to the **City**.

3.6.10. Rejection of Work. The **Architect** shall have the responsibility, obligation, and authority to reject Work which (1) does not conform to the Contract Documents; (2) which the **Architect** believes to be defective; and (3) the **Architect** believes will not produce a completed Project that conforms to the Contract Documents or that will prejudice the integrity of the design concept of the completed Project as a functioning whole as indicated by the Contract Documents and shall promptly notify the **City** of such rejection. Whenever the **Architect** considers it necessary or advisable for implementation of the intent of the Contract Documents, the **Architect** will have the responsibility, obligation, and authority to require additional inspection or testing of the Work in accordance with the provisions of the Contract Documents, whether or not such Work is fabricated, installed, or completed; provided, however, the **Architect** must obtain the **City's** prior written approval of any such special inspection or testing. However, neither this authority of the **Architect** nor a decision made in good faith either to exercise or not to exercise such authority shall give rise to a duty or responsibility of the **Architect** to the Contractor, Subcontractors, Suppliers, other persons performing portions of the Work.

3.6.11. Submittals. The **Architect** shall review and approve or take other appropriate action upon the Contractor's submittals such as Proposed Change Orders, Shop Drawings, Product Data, and Samples, for the purpose of: (a) determining compliance with applicable laws, statutes, ordinances, codes, orders, rules, and regulations; and (b) determining whether the Work, when completed, will be in compliance with the requirements of the Contract Documents. The **Architect's** action shall be taken with such reasonable promptness as to cause no delay in the Work taking into account the time periods set forth in the latest schedule prepared by the Contractor and approved by the **Architect** and, in any event, such action shall be taken within fourteen (14) days after submittal to the **Architect**. The **Architect** shall indemnify the **City** for any monies paid by the **City** to the Contractor as a result of the **Architect's** delay in taking appropriate action, as described above, where such delay is not caused in any part by the **City**. Review of such submittals is not conducted for the purpose of determining the accuracy and completeness of other details such as dimensions and quantities or for substantiating instructions for installation or performance of equipment or systems designated by the Contractor, all of which remain the responsibility of the Contractor to the extent required by the Contract Documents. The **Architect's** review shall not constitute approval of safety precautions or, unless otherwise specifically stated by the **Architect**, of construction means, methods, techniques, sequences, or procedures. The **Architect's** approval of a specific item shall not indicate approval of an assembly of which the item is a component. When professional certification of performance characteristics of materials, systems, or equipment is required by

the Contract Documents, the **Architect** shall be entitled to rely upon such certification to establish that the materials, systems, or equipment will meet the performance criteria required by the Contract Documents.

3.6.12. Change Orders and Work Change Directives. The **Architect** shall prepare Change Orders and Work Change Directives, with supporting documentation and data if deemed necessary by the **Architect** for the approval and execution in accordance with the Contract Documents; and may authorize minor changes in the Work not involving an adjustment in the Contract Sum or an extension of the Contract Time (which is the time in which the Work reaches final completion) and which are not inconsistent with the intent of the Contract Documents.

3.6.13. Interpretations, Clarifications, and Decisions of the Architect.

3.6.13.1. The **Architect** will interpret, clarify, and decide matters concerning performance under and requirements of the Contract Documents on written request of either the **City** or the Contractor. The **Architect's** response to such requests will be made with reasonable promptness and within the time set forth herein. Any such written interpretations, clarifications, or decisions shall be binding on the **City** and the Contractor. Interpretations, clarifications, and decisions of the **Architect** shall be consistent with the intent of and reasonably inferable from the Contract Documents and shall be in writing or in the form of drawings. The **Architect** may, as the **Architect** judges desirable, issue additional drawings or instructions indicating in greater detail the construction or design of the various parts of the Work; such drawings or instructions may be effected by a Field Order or other notice to the Contractor, provided such drawings or instructions are reasonably consistent with the previously existing Contract Documents. The **Architect** shall not be liable for results of interpretations, clarifications, and decisions so rendered in good faith and in the absence of negligence by the **Architect**.

3.6.13.2. Time Limit for Rendering Decisions. The **Architect** shall render written interpretations, clarifications, and decisions within a reasonable time, but in no event more than seven (7) days after receipt of same.

3.6.14. Aesthetic Effect. The **Architect's** decisions on matters relating to aesthetic effect must be consistent with the **City's**. The **Architect** shall advise the **City** in matters relating to aesthetic effect; however, the **City's** decision in these matters shall be final.

3.6.15. Claims.

3.6.15.1. Initial Referral. All Claims, the bases of which arise prior to final payment or the earlier termination of the Contract, shall be referred initially to the **Architect** for action as provided herein.

3.6.15.2. Time Period and Action. The **Architect** shall review Claims and shall do one of the following within seven (7) days of receipt of the Claim:

3.6.15.2.1. defer any action with respect to all or any part of a Claim for the purpose of requesting and receiving additional information from either party;

3.6.15.2.2. decline to render a decision for any reason which it deems appropriate (including, but not limited to, the fact that the Claim involves allegations of fault on the part of the **Architect**); or

3.6.15.2.3. render a decision on all or a part of the Claim.

If the **Architect** requests additional information, the **Architect** shall take action with respect to the Claim no later than seven (7) days after receipt of the additional information. The **Architect** shall notify the parties in writing of its disposition of such Claim. If the **Architect** decides that the Work relating to such Claim should proceed regardless of its disposition of such Claim, the **Architect** shall issue to the Contractor a written order to proceed.

3.6.15.3. Decisions.

3.6.15.3.1. Decisions by the City or the Architect. (*Reference:* M.G.L. c. 30, §39P). In every case in which this Contract requires the **City**, any official, or its **Architect** to make a decision on interpretation of the Specifications, approval of equipment, material or any other approval, or progress of the Work, the decision shall be made promptly and, in any event, no later than [seven (7)] days after the written submission for decision; but if such decision requires extended investigation and study, the **City**, the official, or the **Architect** shall, within [seven (7)] days after the receipt of the submission, give the party making the submission written notice of the reasons why the decision cannot be made within the seven-day period and the date by which the decision will be made.

3.6.15.4. Resolved Claims. If a Claim is resolved, the **Architect** shall obtain or prepare the appropriate documentation and provide the **City** and the Contractor with a copy of same.

3.6.16. Determination of Substantial and Final Completion. On behalf of the **City**, the **Architect** shall conduct inspections, determine the dates of Substantial Completion and final completion, and shall issue a certificate of Substantial Completion, with the prior written consent of the **City**. Such inspections shall include a reasonable number of Site visits by the **Architect** and the **Architect's** engineering consultants. The **Architect** shall provide to the **City** a written report of all findings with recommendations for appropriate action. The **Architect** will receive and review (and approve or disapprove, as the case may be) written guarantees, operating manuals, spare parts lists, value charts, and related documents required by the Contract Documents to be assembled by the Contractor. When the **Architect** is satisfied that all such documents are complete as required by the Contract Documents, the **Architect** shall issue a final certificate of payment.

3.6.17. Inspection Prior to End of Guarantee Period. Notwithstanding any other provision in this Agreement, at least thirty (30) days prior to the expiration of the Contractor's guarantee period, the **Architect** shall assist the **City** in inspecting the Project at the **City's** request and provide to the **City** a written report of all findings with recommendations for appropriate action. Such inspections shall include a reasonable number of Site visits by the **Architect** and the **Architect's** engineering consultants.

3.6.18. Certificate of Occupancy. The **Architect** shall be responsible for satisfying any and all requirements with respect to services of an architect necessary to obtain a permanent certificate of occupancy under the Commonwealth of Massachusetts State Building Code.

3.6.19. Limitation on the Architect's Responsibilities.

3.6.19.1. Neither the **Architect's** authority to act under the provisions of the Contract Documents nor any decision made by the **Architect** in good faith to exercise or not to exercise such authority shall give rise to any duty or responsibility of the **Architect** to the Contractor, any Subcontractor, any Supplier, any surety for any of them, or any other person.

3.6.19.1.1. The **Architect** will not have control over or charge of and will not

be responsible for construction means, methods, techniques, sequences, or procedures, or for safety precautions and programs in connection with the Work, since these are solely the Contractor's responsibility as provided in Article 5 of the General Terms and Conditions. The **Architect** will not be responsible for the Contractor's failure to carry out the Work in accordance with the Contract Documents. The **Architect** will not have control over or charge of and will not be responsible for acts or omissions of the Contractor, Sub-contractors, Suppliers, or of any other persons performing portions of the Work.

ARTICLE 4

ARCHITECT'S ADDITIONAL SERVICES

4.1. IN GENERAL. The services described hereunder shall be paid for by the **City** in addition to the compensation for Basic Services. Prior to performing any service which the **Architect** claims to be an Additional Service, the **Architect** shall notify the **City** in writing that the service is an Additional Service, and shall provide with such notice an estimate of the additional compensation which will be payable to the **Architect** for performing such service. Such service shall not be performed, nor shall such estimate be exceeded, without the **City's** prior written approval. Failure to so notify the **City** and obtain the **City's** written approval shall constitute a waiver of the **Architect's** claim for additional compensation on account of such services. These services shall be provided only if authorized or confirmed in writing by the **City**. Notwithstanding anything to the contrary in this Agreement, the **City** shall not be responsible to pay and the **Architect** shall not be entitled to receive compensation for any additional service if such service was required due to the fault of the **Architect** or the **Architect's** failure to perform in accordance with the terms of this Agreement. Neither the **Architect** nor its consultants shall be compensated for any services involved in preparing changes that are required for additional Work that should have been anticipated by the **Architect** in the preparation of the Construction Documents, as reasonably determined by the **City**.

4.2. LIST OF ADDITIONAL SERVICES. The following list of Additional Services is intended to be illustrative and not considered all inclusive:

4.2.1. Making major revisions in Plans, Specifications, or other documents when such major revisions are:

4.2.1.1. inconsistent with approvals or instructions previously given by the **City**, including revisions made necessary by adjustments in the **City's** program or project budget;

4.2.1.2. required by the enactment or revision of codes, laws, or regulations subsequent to the preparation of such documents; or

4.2.1.3. due to changes required as a result of the **City's** failure to render decisions in a timely manner and where such failure is in no way caused by the **Architect**.

4.2.2. Providing services required because of major changes in the Project instigated by the **City**;

4.2.3. Material design work requested by the **City** in connection with Change Orders, Construction Change Directives, and the Contractor's value engineering proposals, provided that evaluation and judgments of the proposed changes and value engineering substitutions shall be provided as a Basic Service;

4.2.4. Providing consultation concerning replacement of Work damaged by fire or other cause during construction, and furnishing services required in connection with the replacement of such Work; provided,

however, that such services are not required as a result of the negligence of the **Architect**; and

4.2.5. Providing any other services not otherwise included in this Agreement.

ARTICLE 5

OTHER CONDITIONS OR SERVICES

5.1. **OTHER SERVICES.** Any other services which are part of Basic Services are set forth in APPENDIX D.

5.2. **HAZARDOUS MATERIALS.** Unless otherwise provided in this Agreement, the **Architect** and the **Architect's** consultants shall have no responsibility for the discovery, presence, handling, removal, or disposal of, or exposure of persons to hazardous materials in any form at the Project Site, including, but not limited to, asbestos, asbestos products, polychlorinated biphenyl, or other toxic substances, provided, however, the **Architect** shall report to the **City** the presence and location of any hazardous material observed by the **Architect** (or any material suspected to exist) or that an architect of similar skill and expertise should have observed.

ARTICLE 6

THE CITY'S RESPONSIBILITIES

6.1. **REQUIREMENTS FOR THE PROJECT.** The **City** shall consult with the **Architect** regarding requirements for the Project, including the **City's** contemplated objectives, schedule, constraints, and criteria, including space requirements and relationships, flexibility, expandability, special equipment, systems, and site requirements.

6.2. **BUDGET.** The **City** shall consult with the **Architect** in order to establish and update an overall budget for the Project, including the Construction Cost, the **City's** other costs and reasonable contingencies related to all of these costs.

6.3. **AUTHORIZED REPRESENTATIVE** The **City** shall designate a representative authorized to act on the **City's** behalf with respect to the Project. The **City** or such authorized representative shall render decisions in a timely manner pertaining to documents submitted by the **Architect** in order to avoid unreasonable delay in the orderly and sequential progress of the **Architect's** services.

6.4. **CONSULTANTS.** The **City** shall furnish the services of consultants not listed in the advertisement for the Request for Proposals when the **City** deems such services to be necessary.

6.5. **FURNISHING INFORMATION OR SERVICES.** Notwithstanding anything to the contrary written herein, the **City** shall only furnish information or services described in herein to the extent that any such information or service is reasonably required by the **Architect** to perform its services under this Agreement. The **Architect** shall review and confirm the sufficiency of any test and information furnished to the **Architect** by or on behalf of the **City** pursuant to this section.

6.6. **NOTICE OF FAULT OR DEFECT.** The **City** shall give prompt written notice to the **Architect**, if the **City** becomes aware of any fault or defect in the Project or nonconformance with the Contract Documents.

ARTICLE 7

USE OF THE ARCHITECT'S PLANS, SPECIFICATIONS, AND OTHER DOCUMENTS

7.1. **IN GENERAL.** The Plans, Specifications, and other documents prepared by the **Architect** for this Project are instruments of the **Architect's** service for use solely with respect to this Project and, unless otherwise provided, the **Architect** shall be deemed the author of these documents and shall retain all common law, statutory, and other reserved rights, including the copyright. The **City** shall be permitted to retain copies, including reproducible copies, of the **Architect's** Plans, Specifications, and other documents for information and reference in connection with the **City's** use and occupancy of the Project. The **Architect's** Plans, Specifications, or other documents shall not be used by the **City** or others on other projects, except by agreement in writing. However, it is expressly understood and agreed that the **City** shall have the right to utilize the Plans, Specifications, and other documents in the event the **City** expands the Project, corrects any deficiencies, or makes any renovations or repairs to the Project. In the event of termination or purported termination of this Agreement by either party, the **City** may use the Plans, Specifications, and other documents in connection with the Project, notwithstanding any dispute between the **City** and the **Architect** as to the reason for validity of the termination, provided only that the **Architect** has been paid for its work through the date of the termination, unless the matter of such payment is subject to litigation or other dispute resolution procedure provided for herein.

7.2. **OFFICIAL REGULATORY REQUIREMENTS.** Submission or distribution of the Plans, Specifications, and other documents to meet official regulatory requirements or for similar purposes in connection with the Project is not to be construed as publication in derogation of the **Architect's** reserved rights herein.

ARTICLE 8

BASIS OF COMPENSATION

8.1. **IN GENERAL.** For Basic Services, compensation shall be as provided in APPENDIX E.

8.2. **STIPULATED SUM.** Where the compensation is based on a stipulated sum, progress payments for Basic Services in each phase shall be as stated in APPENDIX F.

8.3. **MATERIAL CHANGE IN SCOPE OR SERVICES.** In the event of a material change in the scope or services of the Project or the **Architect's** services, the **Architect** shall continue to perform in accordance with the terms of this Agreement during the course of any renegotiation of the **Architect's** compensation hereunder. Equitable adjustments shall be made to the total dollar amount of this Agreement in the event of changes in scope or services herein. (*Reference: M.G.L. c. 7, §38G*).

8.4. **ADDITIONAL SERVICES OF THE ARCHITECT.** For Additional Services of the **Architect**, compensation shall be as stated in APPENDIX C.

8.5. **ADDITIONAL SERVICES OF THE CONSULTANTS.** For additional services of consultants, compensation shall be the actual cost billed to the **Architect** for such services stated in APPENDIX G.

8.6. **REIMBURSABLE EXPENSES.** For Reimbursable Expenses, compensation shall be the actual cost billed to the **Architect** for such services.

ARTICLE 9

PAYMENT TO THE ARCHITECT

9.1. The **City** shall make payments directly to the **Architect** within forty-five (45) days after the **City** receives and approves the **Architect's** detailed certified monthly statement. The detailed monthly statement must include, at minimum, itemized hours and work performed by the **Architect** (including, but not limited to, all employees of the **Architect** and its agents), and an itemized list of Reimbursable Expenses. Records of the **Architect's** expenses and hours pertaining to this Project shall be kept in accordance with generally accepted accounting principles, which principles shall be consistently applied. Said records shall be available to the **City** or its authorized representative upon reasonable notice for inspection and copying during regular business hours for six (6) years after the date of the final certificate of payment.

9.2. No payments will be made in advance of services rendered.

9.3. Deductions may be made from the **Architect's** compensation, if the **Architect** has not properly performed the services required in accordance with the terms of this Agreement.

ARTICLE 10

INSURANCE REQUIREMENTS

10.1. The **Architect** at its own expense must obtain and maintain a professional liability insurance policy covering negligent errors, omissions, and acts of the **Architect** or of any person for whose performance the **Architect** is legally liable arising out of the performance of such contracts for design services. The **City** may require a consultant employed by the **Architect** subject to this subparagraph to obtain and maintain a similar liability insurance policy. If the **Architect** is required by the **City** to obtain all or a portion of such insurance coverage, it shall at its own expense furnish a certificate or certificates of insurance coverage to the **City** prior to the award of the contract. Certificates of insurance are attached hereto as APPENDIX H. Any amendments these insurance requirements are set forth in APPENDIX H.

10.2. Any insurance carrier utilized to fulfill the insurance requirements of this Contract shall have a minimum A.M. Best rating of A-X.

10.3. The **Architect** and its structural, mechanical, and electrical engineering consultants shall each maintain the following minimum insurance coverages:

10.3.1. Workers' Compensation insurance in compliance with Massachusetts law;

10.3.2. Employer's liability policy covering bodily injury by accident (\$100,000 each occurrence) and bodily injury by disease (\$100,000 each employee, \$500,000 policy limit);

10.3.3. Comprehensive automobile liability insurance including hired, non-owned, and leased vehicles, if any, in the amount of \$1,000,000 covering personal injury, bodily injury, and property damage;

10.3.4. Valuable Papers insurance in the amount of \$100,000 covering damage to plans, drawings, computations, filed notes, or other similar data relating to the Work covered by this Agreement;

10.3.5. Commercial general liability insurance with a primary limit of not less than \$1,000,000 combined single limit and naming the **City** as an additional insured; and

10.3.6. Professional Liability insurance in an amount not less than \$1,000,000 or ten per cent (10%) of the Project's estimated cost of construction, or such larger amounts as the **City** may require, for the applicable period of limitations, including contractual liability coverage with all coverage retroactive to the earlier date of this Agreement or the commencement of the **Architect's** services in relation to the Project.

10.4. All insurance shall be provided by companies qualified and licensed to do business in the Commonwealth of Massachusetts and acceptable to the **City**, and shall be maintained for a period of six (6) years following the last performance of services under this Agreement. Certificates evidencing such insurance shall be furnished to the **City** upon the execution of this Agreement by the **Architect** and upon each renewal period thereafter. The policies shall provide that the policies shall not be cancelled, renewed, or amended without thirty (30) days' prior notice to the **City**. All requests by the **Architect** for approval of engineers or other consultants shall be accompanied by certificates setting forth the types and amounts of insurance carried by them. The **Architect** shall require each such engineer or other consultant approved by the **City** to maintain the insurance shown in such certificate in accordance with the provisions of this paragraph.

ARTICLE 11

STATUTORY RECORD-KEEPING AND RECORD-FILING REQUIREMENTS (M.G.L. C. 30, §39R)

11.1. The **Architect** shall make and keep for at least six years after final payment, books, records, and accounts which in reasonable detail accurately and fairly reflect the transactions and dispositions of the **Architect**.

11.2. Until the expiration of six (6) years after final payment, the office of inspector general, and the deputy commissioner of capital planning and operations shall have the right to examine any books, documents, papers or records of the **Architect** or of its subcontractors that directly pertain to and involve transactions relating to, the **Architect** or its subcontractors.

11.3. The **Architect** shall describe any change in the method of maintaining records or recording transactions which materially affect any statements filed with the **City**, including in its description the date of the change and reasons therefor, and shall accompany said description with a letter from the **Architect's** independent certified public accountant approving or otherwise commenting on the changes.

11.4. The **Architect** has filed a statement of management ("management," as used in these paragraphs is defined in M.G.L. c. 30, §39R(a)(7) as "the chief executive officers, partners, principals or other person or persons primarily responsible for the financial and operational policies and practices of the contractor" which is the **Architect** herein) on internal accounting controls as set forth in M.G.L. c. 30, §39R(c) prior to the execution of this Agreement.

11.5. The **Architect** must file with the **City** a statement of management as to whether the system of internal accounting controls of the **Architect** and its subsidiaries reasonably assures that:

11.5.1. transactions are executed in accordance with management's general and specific authorization;

11.5.2. transactions are recorded as necessary:

11.5.2.1. to permit preparation of financial statements in conformity with generally

accepted accounting principles, and

11.5.2.2. to maintain accountability for assets;

11.5.3. access to assets is permitted only in accordance with management's general or specific authorization; and

11.5.4. the record accountability for assets is compared with the existing assets at reasonable intervals and appropriate action was taken with respect to any difference.

11.6. The **Architect** has filed with DCAM prior to the execution of this Agreement and will continue to file annually, an audited financial statement for the most recent completed fiscal year as set forth in M.G.L. c. 30, §39R(d). The final statement filed shall include the date of final payment. All statements shall be accompanied by an accountant's report. Such statements shall be made available to the **City** upon request.

11.7. The **Architect** shall file with the **City** a statement prepared and signed by an independent certified public accountant, stating that s/he has examined the statement of management on internal accounting controls, and expressing an opinion as to:

11.7.1. whether the representations of management in response to this paragraph and the previous paragraph are consistent with the result of management's evaluation of the system of internal accounting controls; and

11.7.2. whether such representations of management are, in addition, reasonable with respect to transactions and assets in amounts which would be material when measured in relation to the **Architect's** financial statements.

NOTE: RECORDS AND STATEMENTS REQUIRED TO BE MADE, KEPT OR FILED UNDER THE PROVISIONS OF M.G.L. c. 30, §39R ARE NOT PUBLIC RECORDS AS DEFINED IN M.G.L. c.4, §7 AND SHALL NOT BE OPEN TO PUBLIC INSPECTION, EXCEPT AS PROVIDED HEREIN.

(Reference: M.G.L. c. 30, §39R)

ARTICLE 12

TERMINATION, SUSPENSION, OR ABANDONMENT

12.1. Except for reasons of nonpayment, this Agreement may be terminated by either party upon not less than seven (7) days' written notice should the other party fail to perform in accordance with the terms of this Agreement through no fault of the party initiating the termination and may be terminated without cause by the **City** upon at least seven (7) days' written notice to the **Architect**. In the event this Agreement is terminated by the **City** pursuant to this paragraph, the **Architect** shall be entitled to receive compensation for Basic and Additional Services properly performed and for all substantiated Reimbursable Expenses incurred to the date of the notice of termination, but in no event shall compensation exceed the amount specified hereafter if the Project does not proceed and in no event shall any payment be due earlier than such payment would otherwise be due hereunder. Moreover, the **City** shall be entitled to retain from the monies alleged to be due to the **Architect** an amount that reasonably reflects the cost and expense incurred or to be incurred by the **City** associated with the termination, if the termination is with cause.

12.2. The **City** reserves the right to stop or suspend the work upon seven (7) days' written notice to the **Architect**, with no resulting fee adjustment to the **Architect**, unless such suspension extends for more

than twelve (12) months, in which case the **Architect's** compensation shall be equitably adjusted when the project is resumed to provide for expenses incurred in the interruption and resumption of the **Architect's** services. The **Architect** shall have no cause for termination of this Agreement based on suspension of the Project unless such suspension extends for more than twelve (12) months.

12.3. Persistent failure by the **City** to make payments to the **Architect** in accordance with this Agreement or persistent failure of the **City** to pay the **Architect** within forty-five (45) days of receipt of a statement for services properly performed shall be considered nonperformance and cause for termination. "Persistent" herein shall mean at least three occasions.

12.4. If the **City** fails to make payment when due for services and expenses properly performed, the **Architect** may, upon thirty (30) days' written notice to the **City**, suspend performance of services under this Agreement. Unless the **Architect** receives within thirty (30) days of the date of the notice payment in full for such services that have been properly performed, the suspension shall take effect without further notice. In the event of a suspension of services, the **Architect** shall have no liability to the **City** for delay or damage caused by the **City** because of such suspension of services.

ARTICLE 13

MISCELLANEOUS PROVISIONS

13.1. GOVERNING LAW. This Agreement shall be governed by the laws of the Commonwealth of Massachusetts.

13.2. VENUE. Venue for any court action or proceeding shall be Middlesex County in the Commonwealth of Massachusetts only. The **Contractor**, all Subcontractors, and Suppliers waive any and all jurisdictional and venue defenses.

13.3. PARTNERS, SUCCESSORS, ASSIGNS, ETC. The **City** and the **Architect**, respectively, bind themselves, their partners, successors, assigns, and legal representatives to the other party to this Agreement and to the partners, successors, assigns, and legal representative of such other party with respect to all covenants of this Agreement.

13.4. PROHIBITION AGAINST ASSIGNMENT. The **Architect** shall not assign, in whole or in part, its rights and obligations under the Contract Documents without prior written consent of the **City**. An assignment without the prior written consent of the **City** shall not relieve the **Architect** of its obligations thereunder.

13.5. ENTIRE AGREEMENT. This Agreement represents the entire and integrated agreement between the **City** and the **Architect** and supersedes all prior negotiations, representations, or agreements, either written or oral. This Agreement can be amended only by a written instrument signed by both the **City** and the **Architect**.

13.6. THIRD-PARTY BENEFICIARIES. Nothing contained in this Agreement shall create a contractual relationship with or a cause of action in favor of a third party against either the **City** or the **Architect**.

13.7. NOTICES AND DEMANDS. Notices and demands required by or permitted to be given hereunder shall be hand-delivered or given by registered or certified mail and shall be addressed to the parties at the addresses set forth in APPENDIX I. Such notices and demands may be sent by facsimile transmission if such transmission is followed by hand delivery or registered or certified mail on the same day or the following business day. Notice and demands shall be deemed to have been given when

delivered, or when mailed, or when transmitted by facsimile, if followed by hand delivery or registered or certified mail as provided herein.

13.8. WAIVER OF RIGHTS. The **City's** review, approval, acceptance, or payment for services under this Agreement shall not operate as a waiver of any rights under this Agreement and the **Architect** shall be and shall remain liable to the **City** for all damages incurred by the **City** as the result of the **Architect's** failure to perform in conformance with the terms and conditions of this Agreement. The rights and remedies of the **City** provided for under this Agreement are in addition to any other rights or remedies provided or allowed by law.

13.9. PERSONAL LIABILITY. No member, officer, director, trustee, representative, consultant, volunteer participant, or employee of the **City** shall be personally liable to the **Architect** under any term or provision of this Agreement for the **City's** payment obligation or otherwise, or because of any breach hereof.

13.10. INDEMNIFICATION. The **Architect** shall indemnify and defend the **City** from and against all claims, costs, and liability arising out of the **Architect's** Services hereunder, to the extent that such claims, costs, and liability are the result of the negligent acts, errors, or omissions of the **Architect**, or breaches by the **Architect** of its obligations hereunder or (with respect to the **Architect's** duty to defend) are claimed to be the result thereof.

13.11. ARCHITECT'S PRINCIPALS AND SENIOR PERSONNEL. The **City** is relying on the continued participation in the Project of the principals and senior personnel whose names and time commitments and, where applicable, Massachusetts professional registration numbers are listed in the attached APPENDIX J. The **Architect** shall not remove any such individual from the Project or reduce his or her time commitment to the Project without the **City's** written consent unless such individual dies, becomes disabled, or terminates his or her employment. The replacement of any individual listed in APPENDIX J shall be subject to the **City's** written approval.

13.12 USE OF PROJECT-RELATED DOCUMENTS. The **Architect** may, upon prior written consent of the **City**, include representations of the design of the Project, including photographs of the exterior and interior, among the **Architect's** promotional and professional materials. The **Architect's** materials shall not include the **City's** confidential or proprietary information if the **City** has previously advised the **Architect** in writing of the specific information considered by the **City** to be confidential or proprietary. The **City** shall provide professional credit for the **Architect** on the construction sign and in the promotional materials for the Project. The **City** considers all information concerning the Project to be confidential and proprietary unless otherwise expressly indicated in writing to the **Architect**.

ARTICLE 14

CERTIFICATIONS

14.1. The undersigned **Architect** certifies under the penalties of perjury that:

14.1.1. the **Architect** has not given, offered or agreed to give any gift contribution or offer of employment as an inducement for, or in connection with, the award of a contract for design services;

14.1.2. no consultant to, or subcontractor for the **Architect** has given, offered or agreed to give any gift, contribution, or offer of employment to the **Architect**, or to any other person, corporation, or entity as an inducement for or in connection with the award to the consultant or sub-

contractor of a contract by the **Architect**;

14.1.3. no person, corporation, or other entity, other than a bona fide, full-time employee of the **Architect** has been retained or hired to solicit for or in any way assist the **Architect** in obtaining the contract for design services upon an agreement or understanding that such person, corporation, or other entity be paid a fee or other consideration contingent upon the award of the contract to the designer;

14.1.4. the **Architect** has internal accounting controls as required by M.G.L. c. 30, §39R and the **Architect** shall:

14.1.4.1. for a six-year period after the final payment maintain accurate books, records, and accounts which in reasonable detail accurately and fairly reflect the transactions and dispositions of the **Architect**;

14.1.4.2. file regular statements of management concerning internal auditing controls; and

14.1.4.3. file an annual audited financial statement; and submit a statement from an independent certified public account that such C.P.A. or public accountant has examined management's internal auditing controls and expresses an opinion as to their consistency with management's statements and whether such statements are reasonable with respect to transactions and assets that are substantial in relation to the **Architect's** financial statements, as provided by M.G.L. c. 7, §38H(e) and

14.1.5. the Architect has filed a statement of management on internal accounting controls as set forth in M.G.L. c. 30, §39R(c) prior to the execution of this Agreement;

14.1.6. the Architect has filed with DCAM prior to the execution of this Agreement an audited financial statement for the most recent completed fiscal year as set forth in M.G.L. c. 30, §39R(d); and

14.1.7. the Engineer has complied with all the laws of the Commonwealth pertaining to taxes, reporting of employees and contractors, and withholding and remitting child support (M.G.L. c. 62C, §49A).

CITY OF CAMBRIDGE

ARCHITECT

City Manager

Signature

APPROVED AS TO FORM:

By:

City Solicitor

Print Name and Title

APPROVED AS TO THE AVAILABILITY OF FUNDS:

Budget Code: _____

City Auditor

Purchasing Agent

APPENDIX A

**REQUEST FOR PROPOSALS
APPENDIX B**

SCHEDULE OF PERFORMANCE OF THE ARCHITECT

APPENDIX C

COMPENSATION FOR ADDITIONAL SERVICES

	Out-of-Court	In Court
Witness Fee	\$ _____	\$ _____

APPENDIX D
ADDITIONAL BASIC SERVICES

APPENDIX E
COMPENSATION FOR BASIC SERVICES

APPENDIX F

COMPENSATION BASED ON A STIPULATED SUM

APPENDIX G

COMPENSATION FOR ADDITIONAL SERVICES OF CONSULTANTS

APPENDIX H
CERTIFICATES OF INSURANCE
AND
ADDITIONAL INSURANCE REQUIREMENTS

APPENDIX I

NOTICES

Notice to the **City** shall be addressed to:

City Manager
City of Cambridge
795 Massachusetts Avenue
Cambridge, MA 02139
Facsimile: (617) 349-4007

Notice to the **Architect** shall be addressed to:

Name of Architect _____
Street Address _____
City/State/Zip Code _____
Phone Number _____
Fax Number _____

APPENDIX J

MASSACHUSETTS PROFESSIONAL REGISTRATION NUMBERS
AND
EXPIRATION DATES

NAME

REGISTRATION NUMBER

EXPIRATION DATES

PROPERTY CONDITION ASSESSMENT

CITY OF CAMBRIDGE
456 Broadway
Cambridge, Massachusetts 02138
Dana Ham



CAPITAL NEEDS ASSESSMENT OF THE THE KING / AMIGOS BUILDING 100 Putnam Avenue Cambridge, Massachusetts 02139

PREPARED BY:

EMG
11011 McCormick Road
Hunt Valley, Maryland 21031
800.733.0660
410.785.6220 (fax)
www.emgcorp.com

REVIEWED BY:

Bill Champion
Program Manager
800.733.0660, x6234
bchampion@emgcorp.com

EMG Project #: 75351.06R-007.017
Date of Report: March 28, 2006
On site Date: January 23 and 24, 2006

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EMG

**Deficiency Cost Table
By Building and Year**

School: King/Amigos
Address: 100 Putnam Avenue, Cambridge

Building: School
Year Built: 1971

Priority	Replacement Year	Sub Elements	Elements Description	Room Name	Quantity	Cost per Unit	Unit	Total Cost	Inflated Total Cost
<i>Priority 1</i>									
2006		Windows	Replace deteriorated windows in stairways	General	12	\$2,100.00	ea	\$35,280.00	\$35,280.00
2006		Misc. Other HVAC Systems & Equipment	Mechanical Renovation - 02070 Selective Demolition	General	1	\$197,453.00	ls	\$276,434.20	\$276,434.20
2006		Flashings & Trim	Replace sheet metal coping	General	250	\$23.00	lf	\$8,050.00	\$8,050.00
2006		Other Plumbing Fixtures	Domestic hot water heaters	General	1	\$3,500.00	ea	\$4,900.00	\$4,900.00
2006		Misc. Other HVAC Systems & Equipment	Unit Ventilators	General	67	\$3,600.00	ea	\$337,680.00	\$337,680.00
2006		Misc. Other HVAC Systems & Equipment	Mechanical Renovation - 03300 Concrete	General	1	\$19,740.00	ls	\$19,740.00	\$19,740.00
2006		Misc. Other HVAC Systems & Equipment	Mechanical Renovation - 04000 Masonry	General	1	\$17,500.00	ls	\$24,500.00	\$24,500.00
2006		Headwalls & Catch Basins	Clean out grade drain lines	General	1	\$1,680.00	ls	\$1,680.00	\$1,680.00
2006		Passenger Elevators	Replace controller / dispatcher panel	General	1	\$3,535.00	ea	\$3,535.00	\$3,535.00
2006		Perimeter Drainage	Follow-up study - Professional Engineer	General	1	\$5,000.00	ea	\$7,000.00	\$7,000.00
2006		Domestic Water Supply Equipment	Follow-up Study - Plumbing Contractor	General	1	\$5,000.00	ea	\$7,000.00	\$7,000.00
2006		Misc. Other HVAC Systems & Equipment	Mechanical Renovation - 05000 Metals	General	1	\$88,480.00	ls	\$88,480.00	\$88,480.00
2006		Misc. Other HVAC Systems & Equipment	Mechanical Renovation - 06100 Carpentry	General	1	\$42,000.00	ls	\$42,000.00	\$42,000.00
2006		Misc. Other HVAC Systems & Equipment	Mechanical Renovation - 07100 Insulation Caulking and Sealants	General	1	\$44,380.00	ls	\$44,380.00	\$44,380.00
2006		Misc. Other HVAC Systems & Equipment	Mechanical Renovation - 07270 Firestopping	General	1	\$12,800.00	ls	\$16,800.00	\$16,800.00
2006		Misc. Other HVAC Systems & Equipment	Mechanical Renovation - 07500 Roofing and Flashing	General	1	\$77,980.00	ls	\$77,980.00	\$77,980.00
2006		Misc. Other HVAC Systems & Equipment	Mechanical Renovation - 08100 Metal Doors and Frames	General	1	\$7,140.00	ls	\$7,140.00	\$7,140.00
2006		Misc. Other HVAC Systems & Equipment	Mechanical Renovation - 09501 Acoustic Ceiling Tile	General	1	\$24,500.00	ls	\$24,500.00	\$24,500.00
2006		Urinals	ADA-install an elongated urinal in one boy's restroom on each floor.	General	3	\$1,611.00	ea	\$6,766.20	\$6,766.20
2006		Other Institutional Equipment	Replace telescoping gym bleachers	Stage	240	\$346.00	ea	\$116,256.00	\$116,256.00

2006	Other Floor Construction	Replace damaged concrete loading dock.	General	1	\$4,000.00	ls	\$5,600.00	\$5,600.00
2006	Exterior Wall Construction	Power wash and apply sprayed-on silicone sealer.	General	53670	\$0.55	sf	\$41,325.90	\$41,325.90
2006	Fire Alarm Systems	ADA-install 3 audible strobes in auditorium	Auditorium	3	\$350.00	ea	\$1,470.00	\$1,470.00
2006	Painted Lines & Markings	ADA-install a van-accessible parking space	General	1	\$220.00	ls	\$308.00	\$308.00
2006	Other Ceiling Finishes	Replace kitchen metal ceiling tiles	General	1400	\$2.25	sf	\$4,410.00	\$4,410.00
2006	Stair Handrails and Balustrades	ADA- install extensions at top & bottom of each handrail.	General	32	\$350.00	ea	\$15,680.00	\$15,680.00
2006	Passenger Elevators	ADA-install an audible indicator in elevator	General	3	\$400.00	ea	\$1,680.00	\$1,680.00
2006	Water Closets	ADA-revise 2 toilet stalls into 1 compliant handicapped stall in 1 restroom/gender on ea. floor.	General	6	\$3,149.00	ea	\$26,451.60	\$26,451.60
2006	Other Floor Construction	ADA-install wheelchair seating for 4 chairs in auditorium.	Auditorium	4	\$360.00	ea	\$2,016.00	\$2,016.00
2006	Other Communications & Security Systems	ADA-install an Assistive Listening Device in the auditorium	General	1	\$4,690.00	ea	\$6,566.00	\$6,566.00
2006	Misc. Other HVAC Systems & Equipment	Mechanical Renovation - 09520 Gypsum Drywall	General	1	\$54,000.00	ls	\$75,600.00	\$75,600.00
2006	Misc. Other HVAC Systems & Equipment	Mechanical Renovation - 09560 Resilient Flooring	General	1	\$4,200.00	ls	\$5,880.00	\$5,880.00
2006	Misc. Other HVAC Systems & Equipment	Mechanical Renovation - 09901 Painting	General	1	\$83,520.00	ls	\$116,928.00	\$116,928.00
2006	Misc. Other HVAC Systems & Equipment	Mechanical Renovation - 15400 Plumbing	General	1	\$2,500.00	ls	\$3,500.00	\$3,500.00
2006	Misc. Other HVAC Systems & Equipment	Mechanical Renovation - 15500 HVAC	General	1	\$4,846,595.00	ls	\$6,785,233.00	\$6,785,233.00
2006	Misc. Other HVAC Systems & Equipment	Mechanical Renovation - 16000 Electric	General	1	\$257,144.00	ls	\$360,001.60	\$360,001.60
2006	Painted Lines & Markings	ADA-install handicapped compliant parking spaces	General	2	\$165.00	ea	\$462.00	\$462.00
2006	Windows	Plexiglass glazing - replace	General	45	\$780.00	ea	\$49,140.00	\$49,140.00
2006	Storefronts	Replace rusted storefront glazing system	General	1120	\$40.00	sf	\$62,720.00	\$62,720.00
2006	Theater & Stage Equipment	Replace all auditorium seating	Stage	171	\$194.50	ea	\$46,563.30	\$46,563.30
2006	Boilers	Replace boiler, gas/oil >1,000 MBH	General	2	\$400,000.00	ls	\$1,120,000.00	\$1,120,000.00
2006	Service Distribution	Replace electrical generator	General	75	\$378.13	ea	\$39,703.65	\$39,703.65
2006	Lavatories	ADA-install a compliant lavatory at one common area restroom/gender on ea. floor.	General	6	\$5,100.00	ea	\$42,840.00	\$42,840.00
2006	Auxiliary Equipment	Air Handlers	General	10	\$48,425.00	ea	\$677,950.00	\$677,950.00
2006	Roof Finishes	Single ply rubber membrane	General	150	\$25.00	sq	\$110,250.00	\$110,250.00
2006	Misc. Other HVAC Systems & Equipment	Mechanical Renovation - Design Contingency	General	1	\$588,971.00	ls	\$796,559.40	\$796,559.40
2006	Misc. Other HVAC Systems & Equipment	Mechanical Renovation - General Conditions, Overhead & Profit	General	1	\$1,137,363.00	ls	\$1,592,308.20	\$1,592,308.20
2006	Misc. Other HVAC Systems & Equipment	Mechanical Renovation - Overtime	General	1	\$60,000.00	ls	\$84,000.00	\$84,000.00
2006	Misc. Other HVAC Systems & Equipment	Mechanical Renovation - Phasing	General	1	\$315,934.00	ls	\$442,307.60	\$442,307.60
2006	Misc. Other Plumbing	Replace Building Piping and Valves	General	159400	\$4.24	sf	\$946,198.40	\$946,198.40

Deficiency Cost Table

Priority	Replacement Year	Sub Elements	Elements Description	Room Name	Quantity	Cost per Unit	Total Cost	Inflated Total Cost
Systems								
Priority 2								
	2007	Interior Doors	Refinish all common area wood doors	Stage	304	\$75.00	\$31,920.00	\$32,718.00
	2008	Fabricated Cabinets & Counters	Refinish and repair all classroom casework	General	41	\$1,000.00	\$57,400.00	\$60,305.88
	2008	Floor Finishes	Sand and refinish stage floors.	Stage	2100	\$3.00	\$8,820.00	\$9,266.51
	2008	Wall Finishes	Interior painting of common area walls and soffits	General	157500	\$1.28	\$282,240.00	\$296,528.40
	2008	Floor Finishes	Replace Hardwood gym flooring.	General	12525	\$29.60	\$519,836.00	\$545,312.20
	2008	Wall Finishes	Paint classroom walls	Classrooms	69750	\$1.28	\$124,992.00	\$131,319.72
	2008	Floor Finishes	Replace carpet	Stage	479	\$28.00	\$18,776.80	\$19,727.38
	2008	Paving & Surfacing	Cut & Patch asphalt	General	1575	\$3.00	\$6,615.00	\$6,949.88
	2008	Floor Finishes	Replace original vinyl tile flooring	General	68900	\$2.50	\$241,150.00	\$253,358.22
	2008	Other Exterior Doors	Replace hollow metal exterior doors & hardware	General	53	\$2,090.00	\$118,400.00	\$155,912.75
			Total:				\$1,439,349.80	\$1,511,398.93
Priority 3								
	2010	Retractable Partitions	Replace gym movable partition	Gym	1500	\$40.00	\$84,000.00	\$92,720.28
	2010	Interior Doors	Replace hardware on all common area doors	General	328	\$400.00	\$183,680.00	\$202,748.35
	2011	Paving & Surfacing	Seal Coat asphalt	General	10500	\$0.10	\$1,470.00	\$1,663.17
	2011	Headwalls & Catch Basins	Clean out grade drain lines	General	1	\$1,680.00	\$1,680.00	\$1,903.77
	2011	Fences & Gates	Replace wooden fence	General	150	\$15.00	\$3,150.00	\$3,563.94
	2011	Exterior Wall Construction	Replace building caulk	General	7645	\$5.50	\$37,460.50	\$42,383.12
	2011	Exterior Wall Construction	Replace plywood siding	General	750	\$2.50	\$2,825.00	\$2,969.95
	2011	Interior Door Hardware	Replace all classroom door hardware	General	74	\$275.00	\$28,490.00	\$32,233.82
	2011	Passenger Elevators	Replace hydraulic elevator machinery and controls	General	1	\$91,135.00	\$127,589.00	\$144,355.24
			Total:				\$470,144.50	\$524,538.63
Priority 4								
	2013	Wall Finishes	Interior painting of common area walls and soffits	General	157500	\$1.28	\$282,240.00	\$335,494.67
	2013	Wall Finishes	Paint classroom walls	Classrooms	69750	\$1.28	\$124,992.00	\$148,576.21
	2013	Floor Finishes	Replace carpet	Stage	479	\$28.00	\$18,776.80	\$22,319.71

Deficiency Cost Table

Year	Category	Description	General	Quantity	Unit Cost	Material	Unit	Total	
2013	Exterior Wall Construction	Power wash and apply sprayed-on silicone sealer.	General	53670	\$0.55	\$41,325.00	sf	\$49,123.51	
2013	Paving & Surfacing	Overlay asphalt	General	21700	\$0.60	\$18,228.00	sf	\$21,667.36	
2015	Food Service Equipment	Commercial kitchen equipment	General	1	\$120,000.00	\$168,000.00	ls	\$209,808.98	
2016	Paving & Surfacing	Seal Coat asphalt	General	10500	\$0.10	\$1,470.00	sf	\$1,881.72	
2016	Headwalls & Catch Basins	Clean out grade drain lines	General	1	\$1,200.00	\$1,680.00	ls	\$2,150.54	
2016	Painted Lines & Markings	ADA-install handicapped compliant parking spaces	General	2	\$165.00	\$462.00	ea	\$591.40	
Total:							\$657,174.70		\$791,614.11

Report Subtotal: \$17,180,423.05

Report Total: \$17,441,305.72

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CERTIFICATION

EMG has completed a Comprehensive Capital Needs Assessment of the subject property, The King / Amigos Building, located at 100 Putnam Avenue, in the City of Cambridge, Massachusetts.

The conclusions and recommendations presented in this report are based on the brief review of the plans and records made available to our Project Manager during the site visit, interviews of available school personnel familiar with the Property, appropriate inquiry of municipal authorities, our Project Manager's walk-through observations during the site visit, and our experience with similar properties.

No testing, exploratory probing, dismantling or operating of equipment or in depth studies were performed unless specifically required under Section 2 of this report. This evaluation did not include engineering calculations to determine the adequacy of the Property's original design or existing systems. Although walk-through observations were performed, not all areas were observed (See Section 4.2 for areas observed). There may be defects in the Property, which were in areas not observed or readily accessible, may not have been visible, or were not disclosed by the school personnel when questioned. The report describes property conditions at the time that the observations and research were conducted.

This report has been prepared on behalf of and exclusively for the use of the City of Cambridge Public Schools for the purpose stated within Section 2.0 of this report. The report, or any excerpt thereof, shall not be used by any party other than the City of Cambridge Public Schools or for any other purpose than that specifically stated in our agreement or within Section 2.0 of this report without the express written consent of EMG.

Any reuse or distribution of this report without such consent shall be at the City of Cambridge Public Schools and the recipient's sole risk, without liability to EMG.

Any questions regarding this report should be directed to Bill Champion at bchampion@emgcorp.com or at (800) 733-0660, Extension 6234.

Prepared by: William Czepiel
and
Lloyd Pflug,
Field Observers

Reviewed by: _____
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1. EXECUTIVE SUMMARY

1.1. SUMMARY OF FINDINGS

The property information is summarized in the table below. More detailed descriptions may be found in the various sections of the report and in the Appendices.

Property Information	
Address:	100 Putnam Avenue, Cambridge, Massachusetts 02139
Year constructed:	1971
Current owner of property:	Cambridge School District
School occupying building:	King and Amigos
Current usage of property:	Grades Kindergarten through eight
Management Point of Contact:	Mr. Marlon Davis, Assistant Principal
Gross floor area:	159,400 square feet
Number of buildings:	One
Number of stories:	Two and three with a partial mechanical equipment basement
Parking type and number of spaces:	Approximately 62 spaces in three open surface lots.
Building construction:	Reinforced concrete frame
Bay Column spacing:	Approximately 20 ft x 20 ft
Interior vertical clearance:	Approximately 10 ft
Roof construction:	Flat roofs with single-ply membrane; standing seam metal roof over atrium.
Exterior Finishes:	Combination of grooved CMU (concrete masonry unit) walls on pre-cast concrete panels and cast-in-place concrete wall panels.
Heating and/or Air-conditioning:	Common areas: Central system with boiler, condenser, and cooling tower. Spaces: Served by central system noted above.
Fire and Life/Safety:	Sprinklered system (only in storage room along east wall of building); hydrants, smoke detectors, alarms with strobes, battery backup exit signs, extinguishers, central alarm panel, pull stations.
Dates of visit:	January 23 and 24, 2006
Point of Contact (POC):	Mr. Paul Cokely, Head Custodian

Generally, the property appears to have been constructed within industry standards in force at the time of construction. The property appears to have been fairly well maintained in recent years and is in fair overall condition.

According to school maintenance personnel, the property has had a limited capital improvement expenditure program over the past three years, primarily consisting of updating the electronics telecommunications systems. Supporting documentation was not provided in support of these claims but some of the work is evident.

1.2. FOLLOW-UP RECOMMENDATIONS

The following issues require additional study:

- The building plumbing is in poor condition. The piping in the crawl space, servicing water feed, heat and waste drainage is rusted and corroded. Several pipes have been wrapped in a rubberized sleeving material to maintain its function. Valves are seized in position. There is evidence of leakage.
- There are three large dirt-floored crawl spaces under the building. One was investigated and found to have two to three inches of standing water throughout the level of the crawlspace. According to the Chief Custodian, this situation is common throughout the remaining two crawl spaces which were not visualized. It is not determinable if this standing water is the result of plumbing leakage or ground water seepage.
- Full replacement of the Building Plumbing is recommended. Upon completion, a plumbing contractor and professional engineering must be retained to analyze / monitor the condition. The estimated cost to retain both of these contractors is included in the Deficiency Cost Table. The cost for any possible subsequent repairs is not included in the cost tables (please see items 155-6).

1.3. OPINIONS OF PROBABLE COST

The estimates for the repair and capital reserves items noted within this PCR are attached to the front of this report, following the cover page.

These estimates are based on invoices and/or bid documents provided by the Owner and/or facility, construction costs developed by construction resources such as *R.S. Means* and *Marshall & Swift*, EMG's experience with past costs for similar properties, city cost indexes, and assumptions regarding future economic conditions.

1.3.1. Methodology

Based upon our observations, research and judgment, along with consulting commonly accepted empirical Expected Useful Life (EUL) tables; EMG will render our opinion as to when a system or component will most probably necessitate replacement. Accurate historical replacement records provided by the facility manager are typically the best source for this data. Exposure to the weather elements, initial system quality and installation, extent of use, the quality and amount of preventive maintenance exercised are all factors that impact the effective age of a system or component. As a result, a system or component may have an effective age that is greater or less than its actual age. The Remaining Useful Life (RUL) of a component or system equals the EUL less its effective age.

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In addition to determining the EUL and the RUL for each major prime system and building component, EMG will categorize each cited deficiency within one of the following four Priorities:

Priority 1: Currently Critical (Immediate)

Items in this category require immediate action and include corrective measures to:

- * Return a building component to normal operation
- * Stop accelerated deterioration
- * Replace items that have reached or exceeded their useful service life
- * Correct a cited safety hazard

Priority 2: Potentially Critical (Years 1-2)

Items in this category require action in the next 1-2 years and include corrective measures to:

- * Return a building component to normal operation
- * Stop rapid deterioration
- * Correct potential life safety issues and/or code hazards
- * Correct building components that are experiencing Intermittent operations

Priority 3: Necessary – Not Yet Critical (Years 3-5)

Items in this category require appropriate attention to preclude predictable deterioration, potential downtime, additional damage and higher costs to remediation if deferred further.

Priority 4: Recommended (Years 6-10)

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

In addition to identifying and prioritizing all of the observed deficiencies, EMG will also provide the physical conditions of building components. The physical condition is typically defined as being in one of four categories: Good, Fair, Poor and Not Applicable. For the purposes of our assessments, the following definitions are used:

- Good (G) = Component or system is sound and performing its function. However, it may show signs of normal wear and tear, commensurate with its age, some minor remedial work may be required.
- Fair (F) = Component or system is performing adequately at this time but exhibits deferred maintenance, evidence of previous repairs, workmanship not in compliance with commonly accepted standards, is obsolete, or is approaching the end of its typical Expected Useful Life. Repair or replacement is required to prevent further deterioration, restore it to good condition, prevent premature failure, or to prolong its Expected Useful Life. Component or system exhibits an inherent deficiency of which the cost to remedy is not commensurate with the deficiency but is best remedied by a program of increased preventative maintenance or periodic repairs.

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Poor (P) = Component or system has either failed or cannot be relied upon to continue performing its original function as a result of: having realized or exceeded its typical expected useful life, excessive deferred maintenance, state of disrepair, an inherent design deficiency or workmanship. Present condition could contribute or cause the deterioration of contiguous elements or systems. Repair or replacement is required.

N/A = Not Applicable



2. PURPOSE AND SCOPE

2.1. PURPOSE

The purpose of this report is to assist the Client in evaluating the physical aspects of this property and how its condition may affect the Client's financial decisions over time. For this Comprehensive Capital Needs Assessment, the major independent building components were observed and their physical conditions were evaluated in accordance with ASTM E2018-01. These components include the site and building exteriors and representative interior areas. The estimated cost for repairs and/or capital reserve items are included in the enclosed cost tables. All findings relating to these opinions of probable costs are included in the relevant narrative sections of this Report.

The school maintenance staff and code enforcement agencies were interviewed for specific information relating to the physical property, code compliance, available maintenance procedures, available drawings, and other documentation.

2.2. SCOPE

In lieu of providing written record of communication forms, personnel interviewed from the facility and government agencies are identified in Section 2.3. Relevant information based on these interviews is included in Sections 2.3, 3.1, and other applicable report sections.

The assessment team will visit each identified property to evaluate the general condition of the building(s) and site improvements, review available construction documents in order to familiarize themselves with and be able to comment on the in-place construction systems, life safety, mechanical, electrical and plumbing systems, and the general built environment. The assessment team will conduct a walk-through survey of the building(s) in order to observe building systems and components, identify physical deficiencies and formulate recommendations to remedy the physical deficiencies.

- * As a part of the walk-through survey, the assessment team will survey 100% of the facility's interior. In addition, EMG will survey the exterior of the properties including the building exterior, roofs, and sidewalk/pavement.
- * The assessment team will interview the building maintenance staff so as to inquire about the subject property's historical repairs and replacements and their costs, level of preventive maintenance exercised, pending repairs and improvements, and frequency of repairs and replacements.
- * The assessment team will develop opinions based on their site assessment, interviews with school building maintenance staff and experience gained on similar properties previously evaluated. The assessment team may also question others who are knowledgeable of the subject property's physical condition and operation or knowledgeable of similar systems to gain comparative information to use in evaluation of the subject property.
- * The assessment team may review documents and information provided by school building maintenance staff that could also aid the knowledge of the subject property's physical improvements, extent and type of use, and/or assist in identifying material discrepancies between reported information and observed conditions.

2.3. PERSONNEL INTERVIEWED

The following personnel from the facility and government agencies were interviewed in the process of conducting the Comprehensive Capital Needs Assessment:

Name and Title	Organization	Phone Number
Mr. Marlon Davis Assistant Principal	King Amigos Elementary School	617.349.6562
Ms. Cheryl Mason School Secretary	King Amigos Elementary School	617.349.6562
Mr. Paul Cokely, Head Custodian	The King / Amigos Building	617.349.6540
Maintenance Staff	Cambridge Schools	617.349.6855
Lt. Towski	Cambridge Fire Prevention Bureau	617.349.4918

The Comprehensive Capital Needs Assessment was performed with the assistance of Mr. Paul Cokely, Head Custodian and the on site Point of Contact (POC), and the CPS Maintenance Staff, all of whom were cooperative and provided information that appeared to be accurate based upon subsequent site observations. These on site contacts are knowledgeable about the subject property and answered most questions posed during the interview process.

2.4. DOCUMENTATION REVIEWED

Prior to the Comprehensive Capital Needs Assessment, relevant documentation was requested that could aid in the knowledge of the subject property's physical improvements, extent and type of use, and/or assist in identifying material discrepancies between reported information and observed conditions. The review of submitted documents does not include comment on the accuracy of such documents or their preparation, methodology, or protocol. The following documents were provided for review while performing the Comprehensive Capital Needs Assessment:

- Partial full-size set of construction documents;
- Reduced scale diagrammatic floor plans;
- FEMA Flood Information Rate Panel (FIRM) Panel 2501860002B;
- City of Cambridge Tax Assessor's Field Cards.

A prior Mechanical System Replacement Study was reviewed while performing the Comprehensive Capital Needs Assessment. The report was prepared by HMFH Architects, Inc. and is dated January 19, 2005. Property condition and/or factual information discrepancies between the prior report and actual conditions are not readily apparent.

No other documents were reviewed. The Documentation Request Form is provided in Appendix E.

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2.5. PRE-SURVEY QUESTIONNAIRE

A Pre-survey Questionnaire was sent to the POC prior to the site visit. The questionnaire is included in Appendix E. Information obtained from the questionnaire has been used in preparation of this Capital Needs Assessment.



3. ACCESSIBILITY, CODE & MOLD

3.1. CODE INFORMATION, FLOOD ZONE AND SEISMIC ZONE

According to the administrative assistant for Mr. Ranjit Singanayagam of the City of Cambridge Inspectional Services Department, there are no outstanding building code violations on file. The Building Department does not have an annual inspection program. They only inspect new construction, work that requires a building permit, and citizen complaints. A copy of the original Certificate of Occupancy was requested but was not available.

Based on a review of the zoning classification information at the City of Cambridge Planning Department, the property is located within a C-1, Residential, zoning district and appears to be a conforming use.

According to Lt. Towski of the City of Cambridge Fire Department, there are no outstanding fire code violations on file. The most recent inspection was conducted by the Fire Department on January 9, 2006. The Fire Department inspects each school property monthly while school is in session.

According to the Flood Insurance Rate Map, published by the Federal Emergency Management Agency (FEMA) and dated July 5, 1982, the property is located in Zone C, defined as areas outside the 500-year flood plain with less than 0.2% annual probability of flooding. Annual Probability of Flooding of Less than one percent.

According to the 1997 Uniform Building Code Seismic Zone Map of the United States, the property is located in Seismic Zone 2A, defined as an area of low to moderate probability of damaging ground motion.

3.2. ADA ACCESSIBILITY

Generally, Title II of the Americans with Disabilities Act (ADA) prohibits discrimination by entities to access and use of "areas of public accommodations" and "commercial facilities" on the basis of disability. Regardless of its age, these areas and facilities must be maintained and operated to comply with the Americans with Disabilities Act Accessibility Guidelines (ADAAG).

Buildings completed and occupied after January 26, 1992 are required to comply fully with the ADAAG. Existing facilities constructed prior to this date are held to the lesser standard of compliance to the extent allowed by structural feasibility and the financial resources available. As an alternative, a reasonable accommodation pertaining to the deficiency must be made.

During the Comprehensive Facilities Audit, a limited visual observation for ADA accessibility compliance was conducted. The scope of the visual observation was limited to those areas set forth in EMC's Abbreviated Accessibility Checklist provided in Appendix D of this report. It is understood by the Client that the limited observations described herein does not comprise a full ADA Compliance Survey, and that such a survey is beyond the scope of EMC's undertaking. Only a representative sample of areas was observed and, other than as shown on the Abbreviated Accessibility Checklist, actual measurements were not taken to verify compliance. ADA compliance issues inside spaces are not within the scope of the survey.

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At an educational property, the areas considered as public accommodations, besides the site itself and parking are the exterior accessible route, the interior accessible route, and the interior common areas, including the common area restrooms.

The facility does not appear to be accessible with Title II of the Americans with Disabilities Act. Elements as defined by the ADAAG that are not accessible as stated within the priorities of Title II, are as follows:

Parking

- * Adequate number of designated parking stalls and signage for cars are not provided. Install handicapped parking stalls in parking lot closest to accessible building entrance.
Estimated Cost: 2 @ \$165 each = \$330
- * Adequate number of designated parking stalls and signage for vans are not provided.
Estimated Cost: 1 @ \$220 = \$220

Paths of Travel

- * Common area stair handrails do not extend beyond the top and bottom risers.
Estimated Cost: 32 handrails @ \$350 each = \$11,200

Restrooms

- * Modify two existing toilet stalls into one compliant handicapped stall in one common area restroom for each gender per floor that is determined to be handicapped accessible, including grab bars.
Estimated Cost: 6 @ \$3,149 each = \$18,894
- * Raise one existing lavatory in each common area restroom determined to be handicapped accessible, install paddle type faucets and wrap drainpipe.
Estimated Cost: 6 @ \$1,358 each = \$8,148
- * Install an elongated urinal at the compliant height in one boy's restroom per floor.
Estimated Cost: 3 at \$1,611 each = \$4,833

Elevators

- * Audible signals are not provided at floor level changes or elevator lobbies indicating car arrival.
Estimated Cost: 3 floors @ \$400 each = \$1,200

Miscellaneous

- * Install an Assistive Listening Device in auditorium
Estimated Cost: 1 at \$4,690 each = \$4,690
- * Install fire alarm horns with strobe lights in auditorium.
Estimated Cost: 3 at \$350 each = \$1,050



- Install wheelchair seating for four in auditorium.

Estimated Cost: 4 at \$360 each = \$1,440

A full ADA Compliance Survey may reveal additional aspects of the property that are not in compliance.

Corrections of these conditions should be addressed from a liability standpoint, but are not necessarily code violations. The Americans with Disabilities Act concerns civil rights issues as they pertain to the disabled and its Accessibility Guidelines are not a construction code, although many local jurisdictions have adopted them as such. The estimated subtotal cost to address the achievable items noted above is \$52,005. These costs are itemized in the Deficiency Cost Table. The estimated cost figures above do not include soft costs.

3.3. MOLD

EMG performed a limited visual assessment for the presence of mold, conditions conducive to mold, and evidence of moisture in readily accessible interior areas of the property.

No suspect mold was observed, but moisture was observed in the following areas:

- Crawl space beneath the cafeteria / kitchen area. The area affected by the moisture was approximately 7,200 square feet in size.
- Although the second and third crawl space areas were not available for a visual inspection, it was affirmed by the escort that a similar situation exists in these areas as well. The area of involvement for these spaces is not determined.

Additional discussion and description of the follow-up study required to address correction efforts required with regard to the moisture infiltration issues are discussed in Section 1.2 of this report, and associated costs are included within that section.

4. EXISTING BUILDING EVALUATION

4.1. SPACE TYPES

The following table identifies the reported space types and mix at the subject property.

Space Types and Mix			
Quantity	Type	Vacant Spaces	Down Spaces
50	Classroom	0	0
+ - 10	Office	0	0
4	Mechanical	0	0
+ - 64	TOTAL	0	0

4.2. SPACES OBSERVED

EMG observed 100 percent of the building in order to gain a clear understanding of the property's overall condition. Other areas accessed included the exterior of the property, areas of the roofs, and the interior common areas.

All areas of the property were available for observation during the site visit.

A "down space" or area is a term used to describe a non-usable space or area due to poor conditions such as fire damage, water damage, missing equipment, damaged floor, wall or ceiling surfaces, or other significant deficiencies. According to the POC, there are no down spaces or areas. No down spaces or areas were observed during the site visit.

5. SITE IMPROVEMENTS

5.1. UTILITIES

The following table identifies the utility suppliers and the condition and adequacy of the services.

Site Utilities		
Utility	Supplier	Condition & Adequacy
Sanitary sewer	City of Cambridge Department of Public Works	Good
Storm sewer	City of Cambridge Department of Public Works	Good
Domestic water	City of Cambridge Water Department	Good
Electric service	Cambridge Electric Light Company	Good
Natural gas service	Keyspan Natural Gas Company	Good

Observations/Comments:

- The utilities provided appear to be adequate for the property. There are no unique on site utility systems such as septic systems, water or waste water treatment plants or propane gas tanks.
- See Section 7.4 for descriptions and comments regarding the emergency generator.

5.2. PARKING AND SIDEWALKS

There are three parking lots that are provided for this facility. One is a small lot that is located adjacent to the gym along Kinnaird Street. Based on a physical count, there are spaces in this lot to park approximately eight cars.

Another lot is also accessed from Kinnaird Street and is located adjacent to the loading dock. Based on a physical count, there are spaces in this lot to park approximately 22 cars.

The largest parking area is located immediately behind the school. Based on a physical count, there are spaces in this lot to park approximately 32 cars. There are approximately 62 available parking spaces at this facility.

The paving surface at each parking area consists of asphalt paving.

The parking ratio is approximately 2.5 spaces per thousand square feet of floor area. There is one handicapped-accessible parking stall at this site located at the rear parking lot.

An asphalt service lane is located at the rear of the site.

The sidewalks throughout the property are constructed of cast-in-place concrete.

The curbs and gutters are constructed of cast-in-place concrete.

Observations/Comments:

- * The condition of the asphalt paving in each of the three parking lots was observed to be in good to fair condition. The pavement in the parking lot immediately adjacent to the loading dock was observed to be deteriorated with large areas of cracking throughout the parking lot. Based on the estimated Remaining Useful Life and current conditions, replacement of the deteriorated asphalt paving will be required early in the evaluation period. The estimated cost of this work is included in the Deficiency Cost Table.
- * Based on the estimated Remaining Useful Life and current conditions, an overlay of all of the asphalt paving will be required during the evaluation period. The estimated cost of this work is included in the Deficiency Cost Table.
- * In order to maximize the pavement life, pothole patching, crack sealing, seal coating and re-stripping of the pavement surfaces will be required over the evaluation period. The estimated cost of this work is included in the Deficiency Cost Table.
- * The curbs and sidewalks throughout the property appeared to be in good condition requiring routine cleaning and maintenance. No other action is required.

5.3. DRAINAGE SYSTEMS AND EROSION CONTROL

Storm water from the roofs, landscaped areas, and paved areas flows into on site inlets and catch basins with underground piping connected to the municipal storm water management system.

A grade drain is located within the inner courtyard. Another grade drain is located across the bottom of the ramp that provides access into the rear of the building.

Observations/Comments:

- * There is no evidence of storm water runoff from adjacent properties.
- * According to the POC, the courtyard and rear ramp grade drains have a history of inadequate drainage capacity under heavy rain conditions. At the time of this on site visit, melted snow water was observed to be backed up at the courtyard drain to a depth of approximately one inch and draining very slowly. The ramp grade drain did not demonstrate similar conditions at this time. Based on the current conditions, boring out the drain lines of any blockages shall be completed immediately. The estimated cost of this work is included in the Deficiency Cost Table.
- * The balance of the storm water system appears to provide adequate runoff capacity. There is no other evidence of major ponding or erosion.

5.4. TOPOGRAPHY AND LANDSCAPING

The property is an urban site that has a slight slope down from the front of the property to the rear.

The landscaping consists of trees, shrubs, and grasses.

Surrounding properties include an apartment complex and single and multi-family residences.

Reinforced concrete retaining walls are located at the grade changes adjacent to the loading dock.

Observations/Comments:

- * The topography and adjacent uses do not appear to present conditions detrimental to the property.
- * The landscape materials are in good condition and will require routine maintenance during the evaluation period.
- * The retaining walls are in good condition. Routine maintenance will be needed during the evaluation period.

5.5. GENERAL SITE IMPROVEMENTS

Property identification is provided by a lettering mounted over the covered entrance walkway at the front of the building.

Dumpsters are located in the service area and are placed on the asphalt paving.

The small loading dock is located in the service drive area on the north side of the school. The loading dock consists of a cast-in-place concrete structure with stairs and does not have any bumpers or leveling devices.

Wood fencing, approximately four feet high, is located around the classrooms at the front of the building as well as along the side of the parking lot adjacent to the gym.

A small playground is located behind the school facility.

Observations/Comments:

- * The property identification signage is in good condition. Routine maintenance will be needed during the evaluation period.
- * The Dumpsters are owned and maintained by the refuse contractor, requiring routine maintenance over the evaluation period.
- * The loading dock was observed to be significantly damaged with reinforcing bar exposed and a large crack observed the full width of the dock. Based on the estimated Remaining Useful Life and current conditions, replacement of the loading dock will be required early in the evaluation period. The estimated cost of this work is included in the Deficiency Cost Table.
- * The wood fencing along the gym appears to be in fair to poor condition. Some areas of deteriorated wood were observed, which will require immediate repair. The minimum aggregate cost of this work allows it to be considered routine maintenance. Based on the estimated Remaining Useful Life and current conditions, replacement of this wood fence will be required during the evaluation period. The estimated cost of this work is included in the Deficiency Cost Table.
- * The wood fencing along the front of the school appears to be near new and in good condition, requiring routine maintenance over the evaluation period.
- * According to the POC, the playground and associated equipment is owned and maintained by the City of Cambridge. Therefore, no action is required.

6. BUILDING ARCHITECTURAL AND STRUCTURAL SYSTEMS

6.1. FOUNDATIONS

Based on structures of similar size, configuration, and geographic location, it is assumed that the foundations consist of cast-in-place, concrete, perimeter, wall footings with concrete foundation walls. The foundation systems include large reinforced concrete column pads, visible in the crawl space.

Observations/Comments:

- * The foundations and footings could not be directly observed during the site visit except for those in the crawl space. There is no evidence of movement that would indicate excessive settlement. There is evidence of water infiltration in the dirt-floored crawl space areas, as discussed in Sections 1.2 and 3.3.

6.2. SUPERSTRUCTURE

The main classroom building parallel to Putnam Avenue has load-bearing, reinforced, cast-in-place, concrete walls, and interior columns, supporting the upper floors and roofs.

The gymnasium building has load-bearing, concrete masonry unit (CMU), exterior and interior walls supporting the upper floors and roofs.

The upper floors of the main classroom building are reinforced, cast-in-place, concrete slabs supported by precast, concrete beams.

The roof section over the atrium is constructed of metal deck supported by steel beams. The roof decks are topped with standing seam roofing.

The remaining roof sections are reinforced, cast-in-place, concrete slabs supported by precast, concrete beams.

Observations/Comments:

- * The superstructure is exposed in some locations, allowing for limited observation. Walls and floors appear to be plumb, level, and stable. There are no significant signs of deflection or movement.
- * Isolated portions of the lightweight concrete are cracked and damaged. The damaged areas of lightweight concrete must be removed and replaced. This effort can be undertaken as part of routine maintenance.

6.3. ROOFING

The primary roofs are classified as flat roofs. The roofs have sheet metal flashing elements.

The primary roofs consist of unballasted single-ply, elastomeric roofing membrane over rigid insulated boards. The exterior perimeter walls extend above the surface of the roofs, creating parapet walls. The roof membrane turns up the sides of the parapet walls and terminates at sheet metal copings. The roofs have sheet metal flashing elements.

Storm water is drained from the flat roofs by internal drains. The drains in the upper roofs discharge onto the lower roofs. A limited number (approximately six) of the drains flow onto adjacent ground areas; the remainder are fed into the underground storm drainage system.

The secondary roofing system consists of a single-pitched metal roof in the atrium area is finished with a standing-seam metal roof with sheet metal flashing elements. The roof is insulated with rigid insulation.

The sloping standing-seam roof drains over the eaves onto the flat roofing below.

Curb-mounted skylights provide natural illumination over the atrium in the ground floor main lobby.

There are no attics. The roof structures are exposed.

Observations/Comments:

- * The roof finishes are reportedly approximately three years old. The roofs are maintained by the in-house maintenance staff.
- * Based upon information provided by the POC and limited observation due to the presence of heavy snow cover on all roof fields, indications are that there may be isolated leaks at the present time. It is assumed that the fields of the roofs are in good condition. Based on their estimated Remaining Useful Life (RUL) and current condition, the roof membranes, flashings, cant strips and copings will require replacement as an immediate repair. The estimated cost of this work is included in the Deficiency Cost Table.
- * According to the POC, there are some active roof leaks. There was evidence of leaking around pipes at some areas of the building.
- * There is no evidence of roof deck or insulation deterioration from the limited observation available. The roof substrate and insulation should be inspected during any future roof repair or replacement work.
- * There is no evidence of fire retardant treated plywood (FRT) and, according to the POC, FRT plywood is not used.
- * The roof flashings are in generally good condition with isolated repair elements. They will require routine maintenance during the evaluation period, with the repairs undertaken as an immediate maintenance issue to prevent further roof leaks, until full roof and element replacement can be undertaken.
- * The parapet walls and copings are in fair to good condition and will require routine maintenance during the evaluation period, with the exception of the east edge of the second parapet at the southwest corner of the main classroom building, parallel to Putnam Avenue. This coping appears to be lifted from that rim of the parapet and should be repaired immediately. As well, the coping joint at the northwest corner of the stair tower appears to be separating and needs soldering or refastening as an immediate repair. The cost of this work is included in the Deficiency Cost Table.
- * Roof drainage appears to be adequate as best determined under the heavy snow cover. Clearing and minor repair of drain system components should be performed regularly as part of the school's routine maintenance program.
- * The roof vents are in good condition and will require routine maintenance during the evaluation period.
- * The skylights are in good condition and will require routine maintenance during the evaluation period.

6.4. EXTERIOR WALLS

The primary exterior wall finish consists of a combination of CMU (concrete masonry unit) with integral vertical grooves and pre-cast concrete panels. Other exterior wall areas consist of unfinished cast-in-place concrete, which can be found at the clerestories above the roofs, for example. Large areas of the concrete and CMU exterior walls are finished with paint while other areas are unfinished.

The exterior walls facing the service drive and loading dock area at the hallway connecting the gym to the primary building are finished with T1-11 plywood. This material is also used to enclose a lower area of the courtyard.

Expansion joints are located equally spaced along most of the exterior walls. These expansion joints are filled with a flexible sealant.

Observations/Comments:

- * The concrete and CMU exterior wall materials were observed to be in good condition, requiring routine maintenance over the evaluation period. However, the painted finish on these materials was observed to be in poor condition. Since concrete and CMU are not required to be painted, EMG recommends that the existing paint be power washed off in its entirety early in the evaluation period. Immediately after the existing paint has been cleaned off, these materials shall be protected with a clear, sprayed-on silicone sealant. The estimated cost of this work is included in the Deficiency Cost Table.
- * The plywood siding at the service drive exterior walls and its associated painted finish was observed to be in fair condition. This plywood siding shall be painted immediately. The minimum aggregate cost of this work allows it to be considered routine maintenance.
- * Based on the estimated Remaining Useful Life and current conditions, replacement of the plywood siding on the walls adjacent to the service drive will be required early in the evaluation period. The estimated cost of this work is included in the Deficiency Cost Table.
- * The plywood siding on the courtyard wall was observed to be in good condition, but it is not sealed or protected with a painted finish. This plywood siding wall shall be painted immediately. This work considered to be routine maintenance.
- * The exterior wall sealant appeared to be in good to fair condition. Based on the estimated Remaining Useful Life and current conditions, replacement of the expansion joint material will be required during the evaluation period. The estimated cost of this work is included in the Deficiency Cost Table.

6.5. EXTERIOR AND INTERIOR STAIRS

There are three primary stairways in the primary area of the building that connect all levels. In addition, there are three stairways within the gym and auditorium area of the building. The two stairways adjacent to the gym provide access between the floor levels as well as an exit to the exterior.

The stairway behind the auditorium provides access between the auditorium and the music room below.

The interior stairs are constructed of cast-in-place concrete and have closed risers. The handrails are constructed of wood and the balusters are constructed of metal.

The only exterior stairs are those that are part of the loading dock in the service area. These stairs are discussed in Section 5.5, *General Site Improvements*.

Observations/Comments:

- * The interior stairs, balusters and handrails are in good condition and will require routine maintenance during the evaluation period. The wood handrails are not considered to be accessible according to the ADA (Americans with Disabilities Act). Revisions to the handrails are required to be considered accessible. These revisions and their associated costs are discussed in Section 3.2, *ADA Accessibility*.

6.6. WINDOWS AND DOORS

There are a variety of window types throughout the facility. The primary window type consists of aluminum frames, typically with a combination of fixed glazing and an operable pane. In many locations, the bottom panes of this window type consist of pre-finished insulated aluminum panels. The primary glazing within these units consists of dual pane glass while some of these windows are glazed with Plexiglass.

The classroom corridors that overlook the courtyard are typically finished with a frameless, floor-to-ceiling, obscured, tempered glass unit that creates the primary corridor exterior wall material. Interspersed within this glazing system are examples of the aluminum-framed units discussed in the paragraph above.

The upper levels of the classroom walls along each corridor consist of clear wire glass.

The clerestory windows above the roof level consist of dual-glazed fixed units within aluminum frames.

Hollow metal glazing systems are located along one lower level corridor at the perimeter of the courtyard. The adjacent cafeteria exterior storefront wall system consists of the same materials.

The glazing system located in the stairways also consists of hollow metal frames with a combination of glass and Plexiglass glazing.

Additionally, this type of glazing system is also located at the main entrance into the Amigos area of the facility at both the ground level and the second floor level immediately above.

The main entrance doors consist of insulated fiberglass doors set within aluminum frames. This type of entrance door system is also located at the exterior doors that lead out to the rear ramp from the ground and first floor levels. The balance of the exterior doors consists of painted hollow metal units set within hollow metal frames. Some of the exterior doors have glazing.

There is a large steel-framed sliding glass door within the storefront glazing system adjacent to the cafeteria that provides direct access to the courtyard.

The entrance doors have cylindrical locksets, typically with panic bar or round knob handle hardware.

Observations/Comments:

- * The hollow metal storefront glazing systems located in the stairways were observed to be rusted. Based on the estimated Remaining Useful Life and current conditions, replacement of each of the steel-framed stairway windows will be required early in the evaluation period. The estimated cost of this work is included in the Deficiency Cost Table.
- * The (bottom) sills of the hollow metal storefront system at the perimeter of the courtyard were observed to be rusted. This condition appears to be also evident in the similar hollow metal storefront system over the main entrance into the Amigos section of the facility at the rear of the building. Each of these storefront window systems will require replacement early in the evaluation period. The estimated cost of this work is included in the Deficiency Cost Table.

- According to the maintenance staff, the aluminum window frames are original. Most of the window sashes have been replaced since their original installation, beginning with glass sashes that were consequently replaced with Plexiglass. Currently, most of the Plexiglass windows have been replaced with dual pane glazing. However, windows with Plexiglass glazing still exist. This glazing system is inferior to dual pane glass and will require replacement early in the evaluation period. The estimated cost of this work is included in the Deficiency Cost Table.
- Many of the hollow metal exterior service and entrance doors were observed to be rusted. Based on the estimated Remaining Useful Life and current conditions of each of the hollow metal exterior doors, replacement will be required during the evaluation period. This work shall include the replacement of each doors' associated hardware with handicapped accessible lever hardware, where applicable. The estimated cost of this work is included in the Deficiency Cost Table.
- According to the POC, fiberglass exterior entrance doors were recently installed. These doors are in good condition, requiring routine maintenance over the evaluation period.
- The sliding glass door in the cafeteria was observed to be in good condition. However, the door operated as if the rollers at the bottom of the door are in poor condition as the door was very hard to open and close. Replacement of the rollers is required immediately. The minimum aggregate cost of this work allows it to be considered routine maintenance.
- One of the clerestory windows over classroom was observed to be shattered, requiring immediate replacement. The minimum aggregate cost of this work allows it to be considered routine maintenance.

6.7. PATIO, TERRACE AND BALCONY

The ground level courtyard consists of a concrete paving surface. This courtyard includes a raised concrete stage on one side and a broad set of steps leading up to the aforementioned hollow metal storefront glazing system on the other side.

Observations/Comments:

- The courtyard paving and other elements appeared to be in good condition, requiring routine maintenance over the evaluation period.

6.8. COMMON AREAS, ENTRANCES AND CORRIDORS

The lobby is adjacent to the front main entrance and provides direct access to the main offices, corridors and an atrium, which is immediately adjacent to the main entrance and is open to the lower and upper levels.

Classrooms are accessed from corridors beyond the lobby and from corridors on each floor.

Common area restrooms are located on each floor.

The common area doors consist of stained solid core doors providing access to the restrooms, auditorium, gym and other support spaces. There is a combination of stained solid core wood and painted hollow metal doors within the corridors and at the top of the stairways.

The common area solid core wood doors are typically fitted with cylindrical hardware with round knobs while the common area corridor doors contain panic bars and pull handles.

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The following table identifies the interior common areas and generally describes the finishes in each common area.

Common Area	Floors	Walls	Ceilings
Lobby	Quarry tile	Painted concrete	Tectum panels and painted concrete structure
Corridors	Vinyl tile	Painted drywall and painted CMU	Tectum panels and painted concrete structure
Common area restrooms	Quarry tile	Painted CMU	Suspended acoustical tile
Auditorium	Concrete with carpet in the aisles and near the stage	Tectum on rear wall and wood paneling on side walls	Tectum panels and painted concrete structure
Lower gymnasium	Hardwood	Painted CMU	Tectum
Upper gymnasium	Seamless rubber	Painted CMU	Tectum
Cafeteria	Vinyl tile (old)	Painted CMU	Tectum
Media Center / Library	Carpet	Painted drywall	Tectum panels and painted concrete structure
Kitchen	Quarry tile	Painted CMU	12" x 12" metal acoustical tiles
Offices	Vinyl tile	Painted CMU	Tectum panels and painted concrete structure

There are approximately 171 fixed-in-place folding wood and metal seats in the auditorium. The collection of stage curtains are fabric.

There are two gyms at this facility. The upper gym is the larger one and has two small sets of non-motorized wood bleachers and a full-height retractable folding partition. Each gym contains motor or manually-operated basketball standards.

The lower level gym has no bleachers. The locker rooms and associated showers have been abandoned and have been either remodeled into classroom or support spaces or are being used as storage.

Observations/Comments:

- * The painted surfaces in the common areas were observed to be in fair condition. Based on the estimated Remaining Useful Life and current conditions, repainting the common area surfaces will be required during the evaluation period. The estimated cost of this work is included in the Deficiency Cost Table.
- * According to the POC, the vinyl tile located in the main entrance lobby and the adjacent corridors was installed during the summer of 2004. This appears to be a reasonable statement based on EMG's on site observations. This flooring appears to be in good condition. Based on the estimated Remaining Useful Life and current conditions, this tile flooring shall require routine maintenance over the evaluation period.
- * The balance of the vinyl floor tile within the common areas appears to be original and is in fair overall condition. Based on the estimated Remaining Useful Life and current conditions, replacement of the original vinyl tile flooring will be required early in the evaluation period. The estimated cost of this work is included in the Deficiency Cost Table.



- * The quarry tile flooring was observed to be in good condition, requiring routine maintenance over the evaluation period.
- * The auditorium seating was observed to be in fair overall condition. Based on the estimated Remaining Useful Life and current conditions, replacement of all of the auditorium seating will be required during the evaluation period. The estimated cost of this work is included in the Deficiency Cost Table.
- * The auditorium stage wood flooring was observed to be in good condition. However, the applied wood floor finish was observed to be in poor condition. This flooring shall be sanded down to the wood and refinished per industry standards. This work shall occur early in the evaluation period. The estimated cost of this work is included in the Deficiency Cost Table.
- * According to the POC, the stage curtains were installed approximately three years ago. This appears to be a reasonable statement based on EMGs on site observations. The curtain fabric and operational system appeared to be in good condition, requiring routine maintenance over the evaluation period.
- * The carpet flooring in the Media Center was observed to be in good to fair condition. Based on the estimated Remaining Useful Life and current conditions, replacement of the carpeting will be required during the evaluation period. The estimated cost of this work is included in the Deficiency Cost Table.
- * The solid core wood common area doors were observed to be in good to fair condition. These doors shall be sanded and refinished early in the evaluation period. The estimated cost of this work is included in the Deficiency Cost Table.
- * The hardware associated with the common area doors were observed to be in fair to poor condition, requiring replacement early in the evaluation period. The estimated cost of this work is included in the Deficiency Cost Table.
- * The lower gym wood flooring at the entrance into the gym was observed to be in poor condition. Based on the estimated Remaining Useful Life and current conditions, replacement of this deteriorated wood flooring will be required early in the evaluation period. The estimated cost of this work is included in the Deficiency Cost Table.
- * The balance of the wood flooring in this gym appears to be in good condition. However, the applied wood floor finish was observed to be in poor condition. This floor shall be sanded down to the wood and refinished per industry standards, to include the appropriate athletic event striping. This work shall occur early in the evaluation period. The estimated cost of this work is included in the Deficiency Cost Table.
- * The upper gym rubber flooring was observed to be in fair condition. Based on the estimated Remaining Useful Life and current conditions, replacement of this flooring system will be required during the evaluation period. The estimated cost of this work is included in the Deficiency Cost Table.
- * The gym basketball standards appeared to be in good condition, requiring routine maintenance over the evaluation period.
- * The telescoping wood gym bleachers in the upper gym were observed to be in fair to poor condition, requiring replacement early in the evaluation period. The estimated cost of this work is included in the Deficiency Cost Table.
- * The gym movable partition was observed to be in fair condition. Based on the estimated Remaining Useful Life and current conditions, replacement of the partition will be required during the evaluation period. The estimated cost of this work is included in the Deficiency Cost Table.

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- Many of the metal ceiling tiles in the kitchen were observed to be loose or damaged. Based on the estimated Remaining Useful Life and current conditions, replacement of the kitchen ceiling tile system will be required early in the evaluation period. The estimated cost of this work is included in the Deficiency Cost Table.
- Isolated areas of water-damaged ceilings were observed. A small area of damage was observed in the girl's locker room adjacent to the gym and another small area was observed in room K-4. Each of these areas of deteriorated plaster shall be repaired immediately. The minimum aggregate cost of this work allows it to be considered routine maintenance.



7. BUILDING (CENTRAL) MECHANICAL, ELECTRICAL AND PLUMBING SYSTEMS

7.1. BUILDING HEATING, VENTILATING AND AIR-CONDITIONING (HVAC)

Hot water for the central heating system is supplied by two Superior, gas-piloted, #4 fuel oil-fired boilers. Each boiler has a rated output capacity of 8,050 MBH and is located in the mechanical room located in west wall of the basement of the main classroom building. By prior analysis, these boilers operated at approximately 80% efficiency of their rated capacities. These are original equipment.

Chilled water for the central cooling system is supplied by one Trane CentraVac water-cooled chiller and a cooling tower. The chiller has a nominal rating of 340 tons and uses R-22 as a refrigerant, and was installed in 1997 to replace a prior failed unit.

The cooling tower is constructed of stainless steel and is located on the roof. This equipment was installed concomitant with the Trane unit.

There are three small condensers on the flat roof atop the auditorium (two units) and the third unit on the flat roof section to the immediate south of the sloped skylight atrium roof.

Circulating pumps provide heated and chilled water to each temperature-controlled space via a two-pipe distribution system that provides either heating or cooling, depending upon climate needs. Water from the cooling tower can be used for cooling during seasons of moderate temperatures. The heated and chilled water supplies the fan coil units and air handling units.

Heating and cooling are provided in the common areas by high-capacity, air handling units (console-type unit ventilators) equipped with heating and cooling coils. The air handling units are located along the outside walls of the classrooms and can be found at the ceiling level in common area corridors. They are supplied with heated and chilled water by the central system and have outside air intake through louvers in the exterior wall structures.

The stairwells, bathrooms, and other areas are ventilated by mechanical exhaust fans. High-capacity ventilation fans are mounted on the roof and are connected by concealed ducts to each ventilated space.

Observations/Comments:

- * The HVAC systems are maintained by the in-house maintenance staff. A vendor is on contract for issues that maintenance staff cannot remedy.
- * The HVAC equipment varies in age. HVAC equipment is reportedly replaced on an "as needed" basis. Other than the 1997 Trane unit and cooling tower, the remainder of the heat plant appears to be original. The unit ventilators have been replaced over time, with varying ages of equipment.
- * The hot water boilers appear to be in fair condition. Based on their estimated Remaining Useful Life (RUL), the boilers will require replacement during the evaluation period.
- * The Trane CentraVac and appears to be in fair to good condition and will require routine maintenance during the evaluation period.

- * The supply piping for the heating and cooling system is in fair to poor condition. It is original and is noted to be rusting, corroded, and in some places, covered with a black rubber Armaflex sleeving to maintain its integrity. Several valves, upon inspection, were noted to be seized with rust. The piping to the heating system is in need of immediate repair and replacement. The estimated cost for a follow-up study by a plumbing contractor is included in the follow-up recommendations in Section 1.2.
- * The mechanical ventilation system and equipment appear to be in good condition and will require routine maintenance during the evaluation period. Equipment or component replacements can be performed as part of the school's routine maintenance program.
- * Full renovation / replacement of the mechanical system is recommended.
- * A prior Mechanical System Replacement Study was reviewed while performing the Comprehensive Capital Needs Assessment. The report was prepared by HMFH Architects, Inc. and is dated January 19, 2005. The estimated cost of the mechanical system renovation / replacement is included in the Deficiency Cost Table were generated in this report. These costs will be listed as, Mechanical Renovation" costs in the Deficiency Cost Table. These costs are broken down by CSI - Level Three and itemized in the Appendices.

7.2. BUILDING PLUMBING

The plumbing systems include the incoming water service, the cold water piping system, and the sanitary sewer and vent system. The risers and the horizontal distribution piping are reported to be copper. The sanitary sewer and vent systems are reported to be cast iron. Piping is in fair condition in many areas (e.g. crawl space) and a recommendation for a follow-up study by a plumbing contractor to replace necessary portions is included in Section 1.2.

The water meter is located in the basement mechanical room, along the wall adjacent to Putnam Avenue.

Domestic hot water is supplied by a Raypak H30624, 2,500-gallon, gas-fired, water heater. The Raypak unit is rated at 627,000 BTU/hr with an input of 514,000 BTU/hr. Output is adequate for the facility's needs. The Raypak unit is located in the mechanical room along the west wall of the basement of the main classroom building.

Domestic hot water was previously supplied by the HVAC system's boilers. The central hot water system consists of a heat exchanger, circulating pumps, and a 2,500-gallon, insulated storage tank. The piping to the exchanger and tank are still connected, but not in use.

The common area restrooms have commercial-grade fixtures and accessories, including water closets, urinals and lavatories.

Observations/Comments:

- * The plumbing system appears to be well maintained and in fair condition due to age. The water pressure appears to be adequate. Approximately 50% of the piping to the plumbing system will require replacement during the evaluation period. A follow-up study by a plumbing contractor has been recommended in Section 1.2., and the associated cost is included in the Deficiency Cost Table.
- * There is no evidence that the property uses polybutylene piping for the domestic water distribution system. According to the POC, polybutylene piping is not used at the property.
- * The pressure and quantity of hot water appear to be adequate.

- * The Raypak water heater appears to be in fair to good condition. Based on its estimated Remaining Useful Life (RUL), the water heaters will require replacement during the evaluation period. The estimated cost of this work is included in the Deficiency Cost Table.
- * The boilers appear to be in fair condition. Based on their estimated Remaining Useful Life (RUL), the boilers will require replacement during the evaluation period. The estimated cost of this work is included in the Deficiency Cost Table, as noted in Section 7.1.
- * The accessories and fixtures in the common area restrooms are in good condition and will require routine maintenance during the evaluation period.

7.3. BUILDING GAS DISTRIBUTION

Gas service is supplied from the gas main on the adjacent public street. The gas meter and regulator are located in the mechanical room along the exterior wall of the building. The gas distribution piping within the buildings is malleable steel (black iron).

Observations/Comments:

- * The pressure and quantity of gas appear to be adequate.
- * The gas meter and regulator appear to be in good condition and will require routine maintenance during the evaluation period.
- * Only limited observation of the gas distribution piping can be made due to hidden conditions. The gas piping is in good condition and, according to the POC, there have been no gas leaks.

7.4. BUILDING ELECTRICAL

The electrical supply lines run underground from transformers that feed the interior-mounted electrical meter.

The main electrical service size is 1,600 Amps, 120/208-Volt, three-phase, four-wire, 120/240-Volt, single-phase, three-wire, alternating current (AC).

The electrical wiring is reportedly copper, installed in metallic conduit. Circuit breaker panels are located throughout each building.

A diesel-powered, 75-kVA Onan emergency generator of unknown age (by appearance, at least 15 years) is located in the mechanical basement. The generator provides back-up power for elements of the fire and life safety systems. The fuel tank is an aboveground tank located adjacent to the generator.

Observations/Comments:

- * The on site electrical systems are owned and maintained by the utility company. This includes transformers, meters, and all elements of the on site systems.
- * The electrical power appears to be adequate for the property's demands.
- * The switchgear, circuit breaker panels, and electrical meter appear to be in fair condition and will require routine maintenance during the evaluation period. The covers have been removed from four of the five circuit breaker panels in the main bank in the basement mechanical area, and should be replaced. This is a routine maintenance item.

- * The generator is in fair condition and is reportedly tested on a weekly basis. Due to its remaining useful life (RUL), the generator will require replacement during the evaluation period. The estimated cost of this work is included in the Deficiency Cost Table.

7.5. ELEVATORS AND CONVEYING SYSTEMS

There is one hydraulic passenger elevator. The elevator manufacturer was indeterminable. The elevator has a rated capacity of 1,500 pounds and a speed of 95 feet per minute. The elevator machinery is located in a mechanical closet adjacent to the base of the shaft. No supporting documentation regarding the elevator's maintenance and installation was available.

The elevator cab has vinyl-tiled floors, painted wall panels, and recessed ceiling light fixtures. The doors are fitted with mechanical safety stops. Emergency communication equipment is provided in the cab.

Observations/Comments:

- * The elevator and its responsiveness appear to be adequate. No information regarding the elevator service contract was available. The elevator machinery and controls are the originally installed system, and appear to be more than 10 years old. The elevators will require routine maintenance during the evaluation period. Based on its estimated Remaining Useful Life (RUL), the elevator dispatcher will require replacement during the evaluation period. The estimated cost of this work is included in the Deficiency Cost Table.
- * The elevator is inspected on an annual basis by the Commonwealth of Massachusetts Department of Public Safety, and a certificate of inspection is displayed in the elevator cab. The inspection certificate expired ten days prior to the inspection. It is common for inspections to occur behind schedule. A new inspection should be scheduled as soon as possible.
- * The emergency communication equipment in the elevator appears to be functional. Equipment testing is not within the scope of a Property Condition Assessment.
- * The finishes in the elevator cab appear to be in good condition. Based on their estimated Remaining Useful Life (RUL), some of the cab finishes will require replacement during the evaluation period. The cost to replace the finishes is included in the replacement of the elevators above. The estimated cost of this work is included in the cost tables.

7.6. FIRE PROTECTION SYSTEMS

The fire protection systems consist of a wet-pipe sprinkler system in one storeroom, a wet standpipe with fire department hose valves and connections in each stair tower, portable fire extinguishers, smoke detectors, pull stations, and alarm horns with strobes. Siamese connections are located on the exterior of the building. Hardwired smoke detectors are located intermittently throughout the common areas. The nearest fire hydrants are located along the public streets bordering the property and are approximately 50 feet from each building.

Common areas and corridors are equipped with battery back-up exit lights, illuminated exit signs, pull stations, alarm horns, and strobe light alarms.

Fire sprinkler risers are located in a fire protection equipment area of the mechanical basement. The system is equipped with two backflow preventers.

A Fire Lite Alarm (no model number available) digital central fire alarm panel is located in the entry lobby, adjacent to the entry doors and monitors the pull stations, smoke detectors, and flow switches. The alarm panel also sounds the alarm and automatically notifies the monitoring service or the fire department in the event of trouble. The panel is of unknown age. No supporting documentation was available for this equipment.

The commercial kitchen in the space is not equipped with a fire suppression system other than fire extinguishers. By City of Cambridge fire ordinances, a chemical system is not required if deep fat fryers are not in use.

The walls of the fire stairwells are finished with exposed masonry. The stairs discharge at the ground floor, to the interior space. The fire exit stairwells are not pressurized and do not have smoke evacuation equipment.

Observations/Comments:

- * Information regarding fire department inspection information is included in Section 3.1.
- * The fire sprinklers appear to be in good condition and are inspected by a qualified contractor on a routine basis. The fire sprinklers will require routine maintenance during the evaluation period.
- * The fire extinguishers are tested annually and appear to be in good condition. The fire extinguishers were tested and inspected within the last year.
- * The pull stations and alarm horns appear to be in good condition and will require routine maintenance during the evaluation period.
- * The pull stations and alarm horns appear to be in good condition. The alarm horns are equipped with strobe lights.
- * Smoke detector replacement is considered to be routine maintenance. It is noted that there appears to be insufficient smoke detectors for the size of the school. Information on Fire Code Compliance is expected shortly from the Bureau of Fire Prevention, City of Cambridge, so it is unknown if the number of smoke and heat detectors is to code. Installation of additional smoke detectors as a proactive measure is recommended. Associated costs for this installation are included in the Deficiency Cost Table.
- * Exit sign and emergency light replacement is considered to be routine maintenance.
- * The central alarm panel appears to be in good condition and is tested regularly by a qualified fire equipment contractor. Equipment testing is not within the scope of a Property Condition Assessment. There is no specific inspection documentation displayed by the panel regarding its last inspection.
- * The exit stairwells appear to have been constructed in accordance with applicable codes in force at the time of construction. The stairwells appear to be in general compliance.
- * The stairwell doors and door hardware are fire-rated. Components bearing certification labels are displayed on the doors.

7.7. BUILDING COMMUNICATIONS SYSTEMS

The intercom system in the school is a National Telecom System and provides communication to the interior common area hallways, classrooms, and areas of public congregation such as the cafeteria, library, and gymnasium. The main console is located in a communications room near the principal's office. The intercom system was installed in 2003. The system is an upgrade to original equipment and is approximately two years of age.

CAPITAL NEEDS

ASSESSMENT

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The computer network consists of a hardwired system, providing a complete range of broadband internet services. The system is approximately one year old.

The cable television system consists of cable television access throughout the school. Media Central monitors this service.

The telephone system consists of a digital switch with a small number of headsets (Voice headsets). The switch is located in an undetermined location, and was manufactured by Digital. The headsets are located in various classrooms, administrative areas, and in other locations throughout the school. The system was installed in 2004.

There is no video surveillance system at this time. Installation of a security system with cameras placed to monitor the exterior doorways and the rear of the building is planned for 2007. The security station will be located in the main office. The system is to be manufactured by Data Systems and the equipment will consist of VCCR / DVR recording devices and monitors.

The data system is also not yet in place, but will consist of network jacks terminating in telecommunications closets located in three separate locations. There are plans to install three servers that will monitor three sets of routing equipment with locations at the first floor main corridor, left corridor, and second floor corridor. Location of the grounding site is yet to be determined.



8. INTERIOR SPACES

8.1. INTERIOR FINISHES

The following table generally describes the interior finishes in the various spaces:

Typical Space Finishes			
Room	Floor	Walls	Ceiling
Classrooms	Vinyl tile	Painted CMU	Tectum and painted exposed concrete structure
Art Room	Vinyl tile	Painted CMU	Tectum and painted exposed concrete structure
Science Room	Vinyl tile	Painted CMU	Tectum and painted exposed concrete structure

The classroom entrance doors are stained solid-core wood doors set in metal frames. The classroom doors have cylindrical locksets with round knob handle hardware.

Each of the classrooms has wood casework for storage that includes closets, cabinets and a small sink and associated countertop.

Observations/Comments:

- The interior finishes associated with the classrooms are in good to fair overall condition. Based on the Estimated Useful Life and the observed conditions, painting is recommended during the evaluation term. The costs are included in the Deficiency Cost Table.
- The casework within the classrooms is in fair condition. There is evidence of broken cabinet drawers and doors in the Art classroom and overall mildly deteriorated wood finishes in most other locations. Based on the Estimated Useful Life and the observed conditions, refinishing all casework and repairing all damaged casework is recommended during the evaluation term. The costs are included in the Deficiency Cost Table.
- The classroom door leafs are in good condition while the finish on the doors and the associated door hardware is in fair condition. Based on the estimated Remaining Useful Life and current conditions, refinishing of each classroom door leaf as well as the replacement of the door hardware will be required during the evaluation period. Install lever hardware to replace the existing cylindrical round knob hardware in each location. The estimated cost of this work is included in the Deficiency Cost Table.

8.2. COMMERCIAL KITCHEN EQUIPMENT

The kitchen areas have a variety of commercial kitchen appliances, fixtures, and equipment. The kitchen includes the following major appliances, fixtures, and equipment:

Appliance	Comment
Refrigerators	Upright, plus walk-in chiller
Freezers	Walk-in
Blodgett convection ovens	Gas
Chiller	Upright
Milk Coolers	Electric
Hood	Exhaust ducted to exterior
Dishwasher	Owned
Ice Machines	Yes
Steam tables	Yes
Work tables	Stainless steel, butcher block
Shelving	Stainless steel

Observations/Comments:

- The kitchen appliances appear to be in good condition. Based on their estimated Remaining Useful Life (RUL), the kitchen appliances will require routine maintenance during the evaluation period.

8.3. HVAC

Heating and cooling are supplied from the central system described in Section 7.1.

The air handling units served from the central hot water boiler and chiller units are located along the outside walls of the classrooms and can be found at the ceiling level in common area corridors. They are supplied with heated and chilled water by the central system and have outside air intake through louvers in the exterior wall structures.

In large expanse classrooms, the unit ventilators are supplemented with fan coil units located in opposite corners from the unit ventilators. These also serve corridor spaces for heating and cooling. No outside air intake is supplied to these units.

Central air multi-zone units also service several classrooms, office spaces, conference rooms, and the cafeteria at the building's core. Other areas, such as the exterior Health office and the Guidance department are serviced by a combination of ducted systems from central air from multi-zone units and horizontal unit ventilators. The Auditorium is served by a ducted single zone dedicated system for that space. The gymnasium spaces and boiler room have four heating and ventilating units, two of which are externally vented, and two without ventilation.

There are no individual thermostats. Load balance serves to equalize building temperature. The valves of the unit ventilators are poorly positioned behind enclosure panels, creating service difficulties for mechanical support technicians.

Observations/Comments:

- The space HVAC equipment appears to be in fair to good condition. The unit ventilators vary in age, replaced on an as-needed basis. Based on estimated Remaining Useful Life (RUL), these units will require replacement during the evaluation period. The estimated cost of this work is included in the Deficiency Cost Table.
- The air handling units appear to be in fair to good condition. Based on their estimated Remaining Useful Life (RUL), they will require replacement during the evaluation period. The estimated cost of this work is included in the Deficiency Cost Table.

8.4. PLUMBING

Each space restroom includes at least one water closet and one lavatory. There are urinals in the boys' rooms.

Hot water is supplied by the central system described in Section 7.1.

Observations and Comments

- The space restroom accessories and fixtures appear to be in good condition. Space restroom accessories and fixtures will require routine maintenance during the evaluation period.
- The pressure and quantity of hot water appear to be adequate.

9. OTHER STRUCTURES

Not applicable. There are no major accessory structures.

10. APPENDICES

- APPENDIX A: Photographic Record
- APPENDIX B: Site and Floor Plans
- APPENDIX C: Supporting Documentation
- APPENDIX D: EMG Abbreviated Accessibility Checklist
- APPENDIX E: Pre Survey Questionnaire and Documentation Request Checklist
- APPENDIX F: Acronyms and Out of Scope Items
- APPENDIX G: Resumes for Report Reviewer and Field Observer

APPENDIX A:
PHOTOGRAPHIC RECORD





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EMG PHOTOGRAPHIC RECORD

Project No.: 75351.06R-007.017

Project Name: The King / Amigos Building

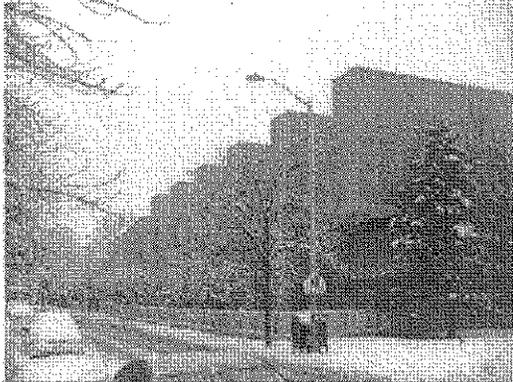


Photo #1: Front elevation of building

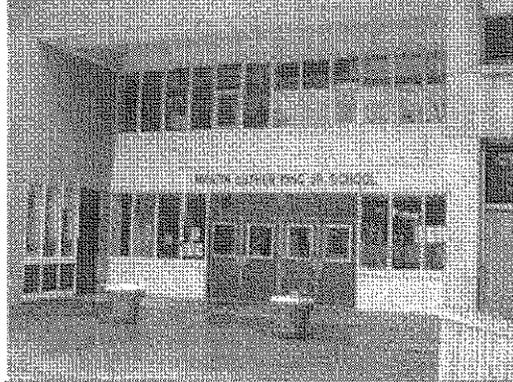


Photo #2: Main entrance with signage

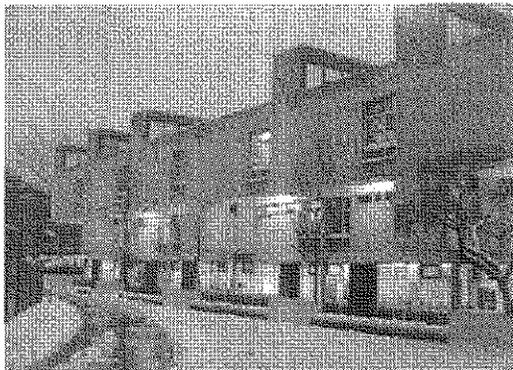


Photo #3: Rear of the building



Photo #4: Access road at rear of the building



Photo #5: Daycare entrance on south side of building

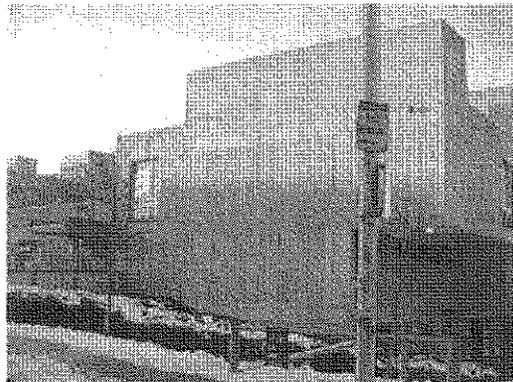


Photo #6: Partial overview of south side of building



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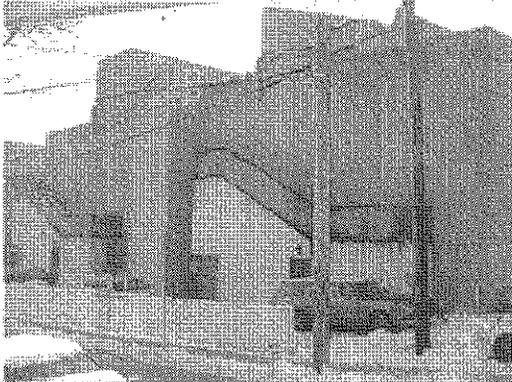


Photo #7: Partial overview of north side of building at gym

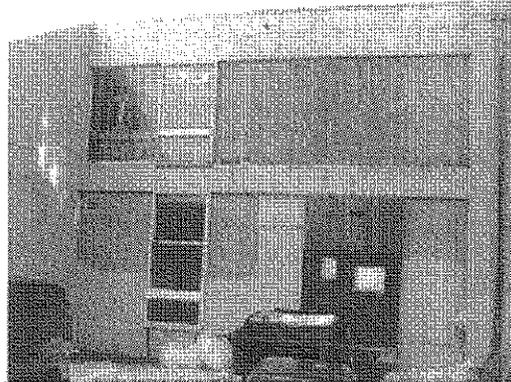


Photo #8: Painted wood siding in loading dock area

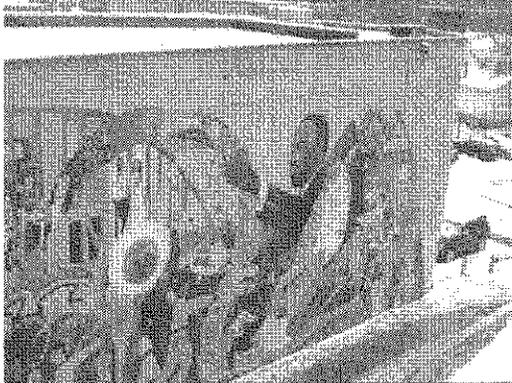


Photo #9: Mural on gym wall

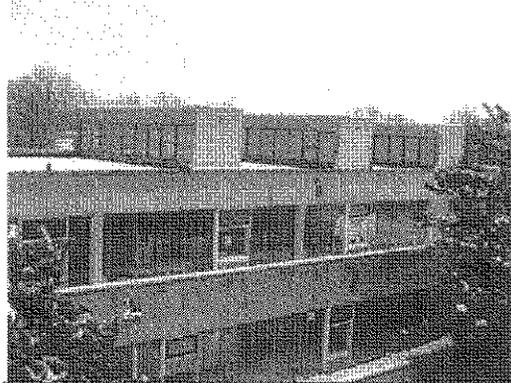


Photo #10: Partial overview of clerestory windows and corridor glazing for lower floors



Photo #11: Corridor glazing overlooking courtyard

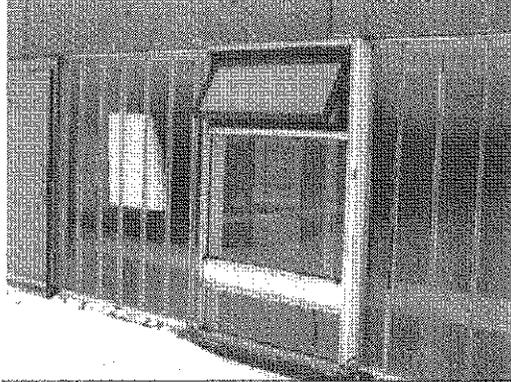


Photo #12: Typical operable window within corridor glazing overlooking courtyard



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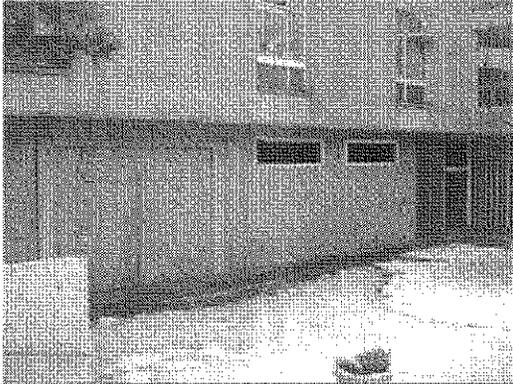


Photo #13: Unpainted wood siding on exterior wall in courtyard

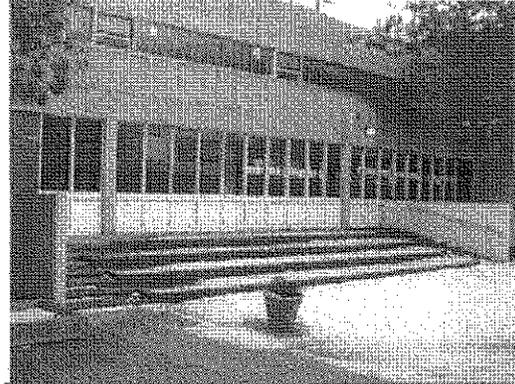


Photo #14: Typical hollow metal storefront glazing system in courtyard



Photo #15: Typical rust at bottom of hollow metal glazing system at courtyard



Photo #16: Partial overview of courtyard with grade drain in the middle of photo

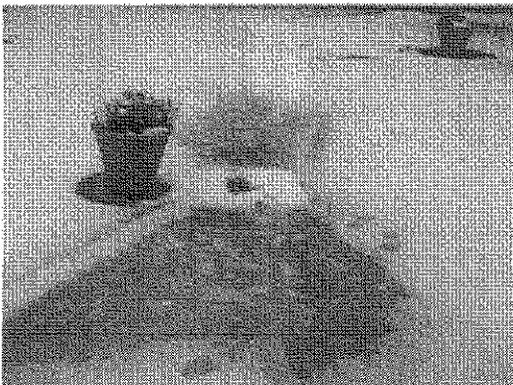


Photo #17: Backed-up grade drain in courtyard



Photo #18: Classroom glazing system at ground floor of rear of the building



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Photo #19: Classroom glazing system at ground floor of front of the building

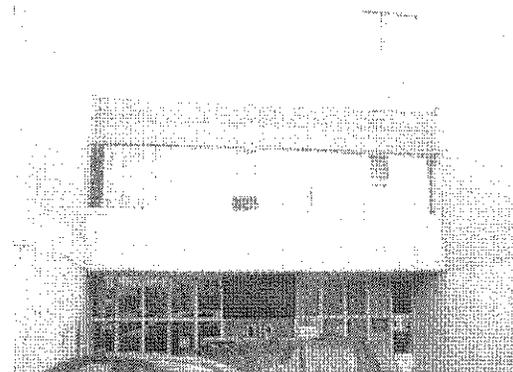


Photo #20: Rusted hollow metal glazing system at rear of building (upper level-obscured by glare)



Photo #21: Typical common area stairway window framing system with rust

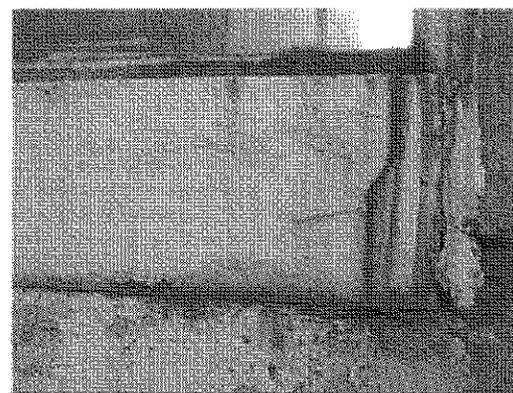


Photo #22: Example of rust damage to window frames in common area stairways

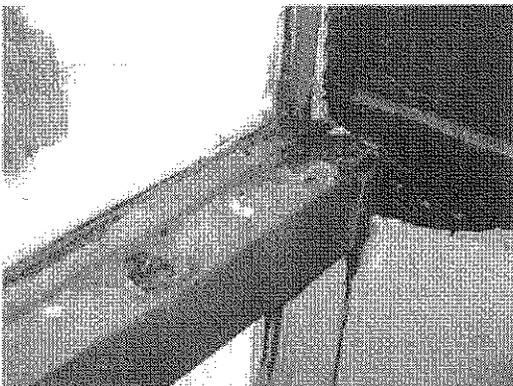


Photo #23: Example of rust on interior of common area stairway window frames

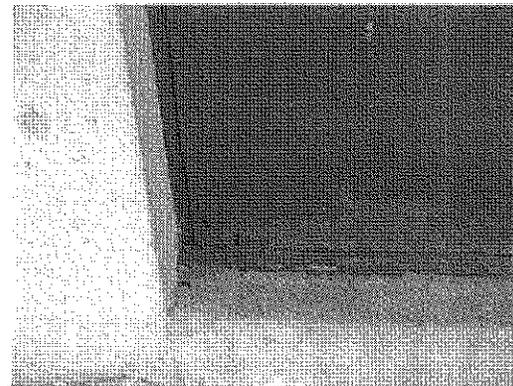
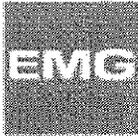


Photo #24: Typical rusting condition of exterior hollow metal service doors



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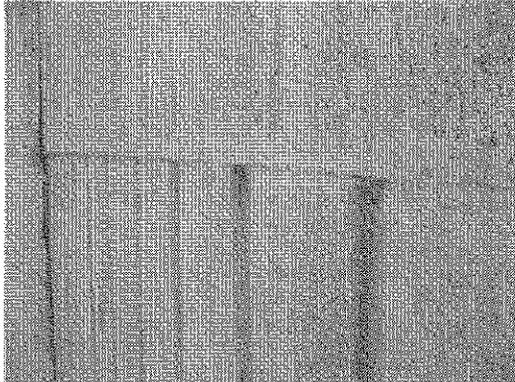


Photo #25: Typical expansion joint material at pre-cast concrete exterior wall panels



Photo #26: Signage on exterior wall at rear of the building with deteriorated paint



Photo #27: Loading dock and hollow metal service door

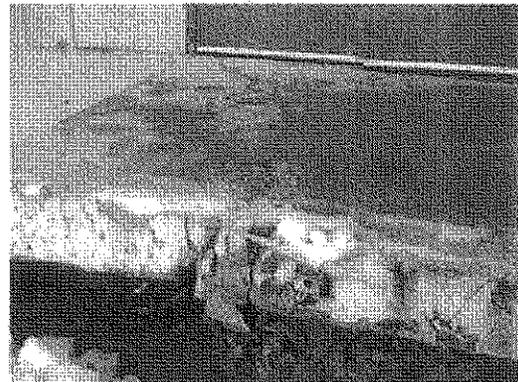


Photo #28: Damaged cast-in-place concrete loading dock

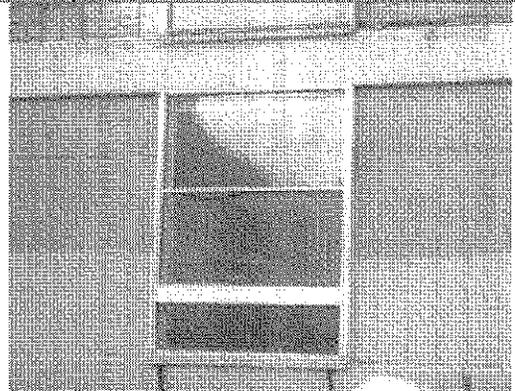


Photo #29: Example of aluminum-framed window with Plexiglass glazing

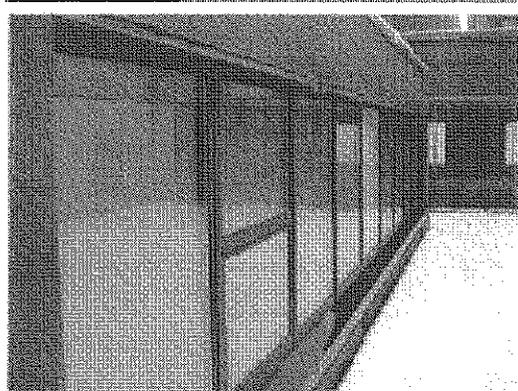


Photo #30: Typical clerestory aluminum-framed windows



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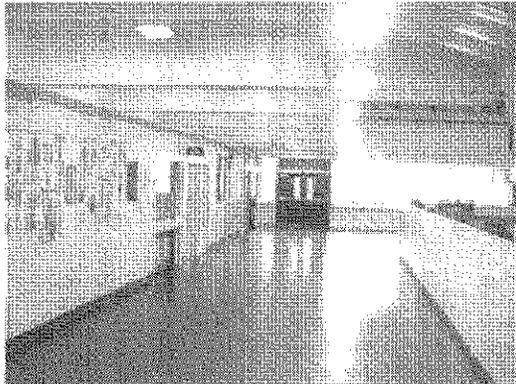


Photo #31: Lobby immediately adjacent to main entrance



Photo #32: Second floor corridor overlooking lower levels at atrium



Photo #33: Library

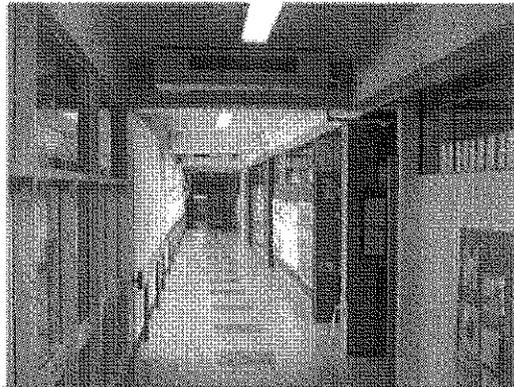


Photo #34: Typical corridor

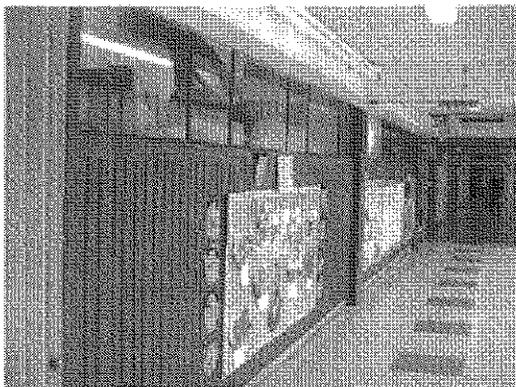


Photo #35: Typical wire glass windows into classrooms along corridors



Photo #36: Typical corridor glazing system overlooking courtyard



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Photo #37: Typical common area stairway. None of the handrails are compliant with the ADA



Photo #38: Typical classroom entrance

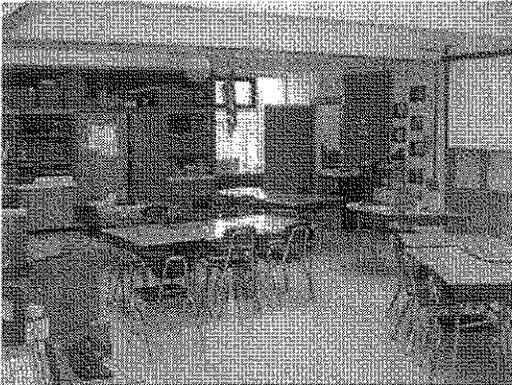


Photo #39: Typical classroom



Photo #40: Deteriorated casework in Art classroom

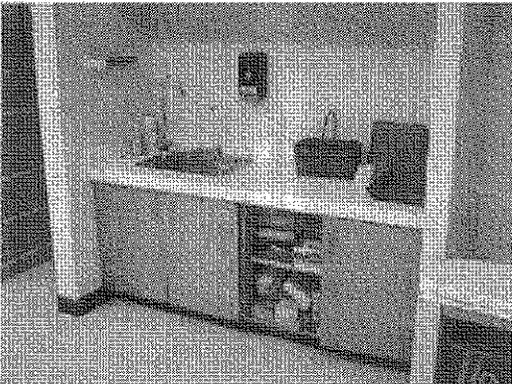


Photo #41: Typical casework in classrooms

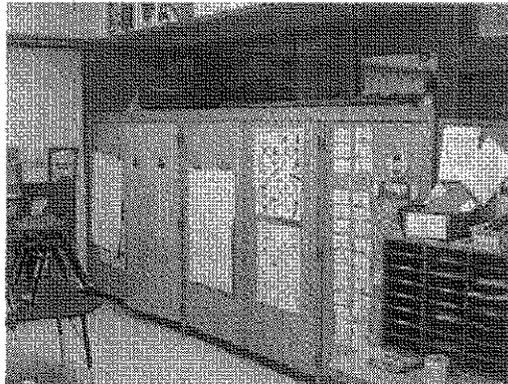


Photo #42: Typical casework for classroom storage closets



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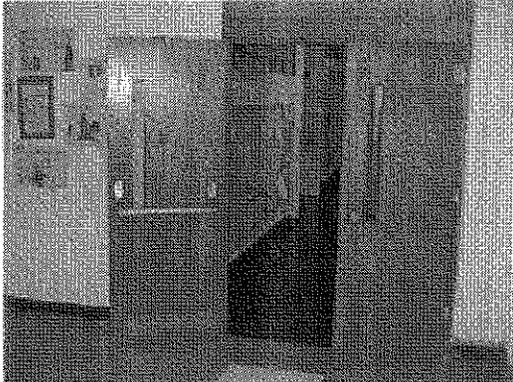


Photo #43: Typical solid core corridor doors

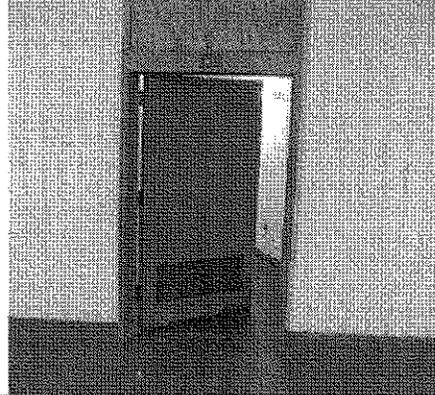


Photo #44: Typical solid core wood restroom doors



Photo #45: Auditorium stage



Photo #46: Partial overview of stage

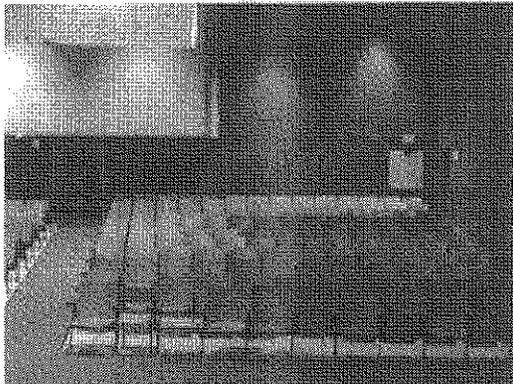


Photo #47: Partial overview of auditorium seating

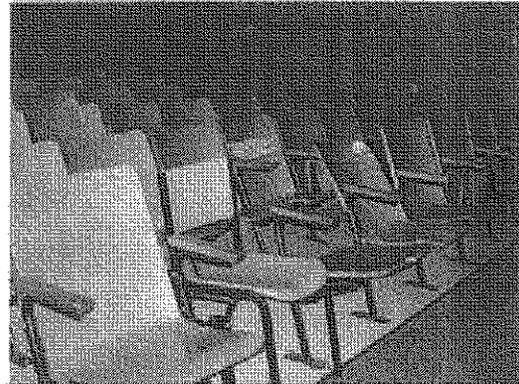


Photo #48: Example of condition of auditorium seating



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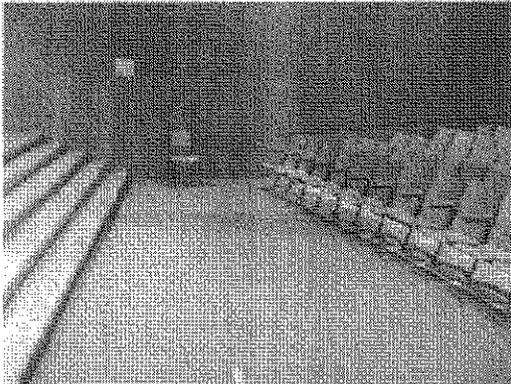


Photo #49: Carpeting in auditorium

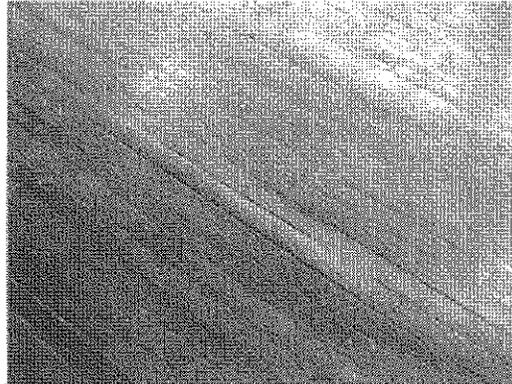


Photo #50: Deteriorated area of wood floor at lower gym

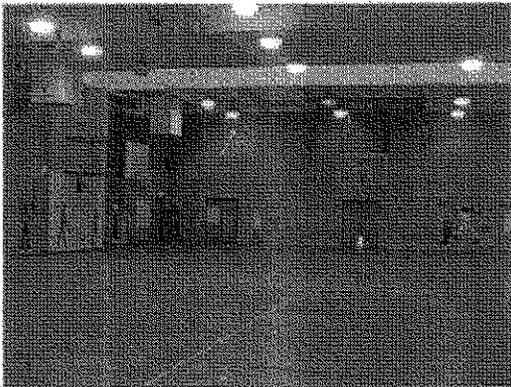


Photo #51: Partial overview of upper gym



Photo #52: Example of overall condition of gym bleacher seating



Photo #53: Example of condition of lower gym wood floor

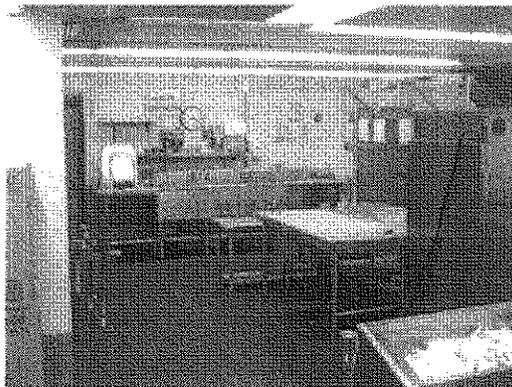


Photo #54: Partial overview of kitchen



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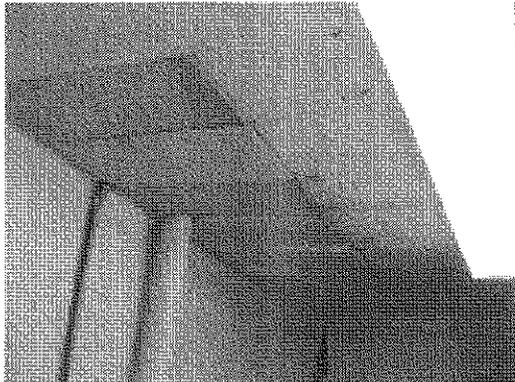


Photo #55: Deteriorated metal ceiling tiles in kitchen

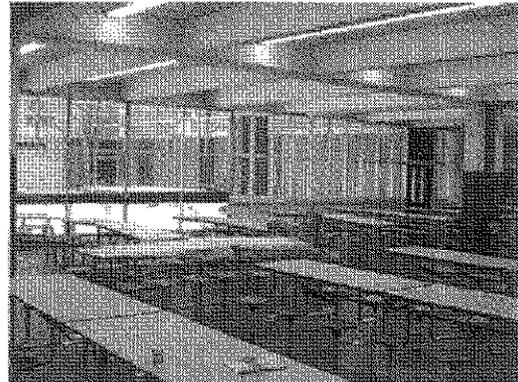


Photo #56: Partial overview of cafeteria

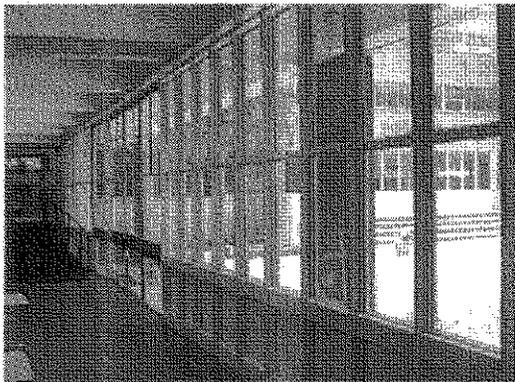


Photo #57: Hollow metal storefront glazing system in cafeteria

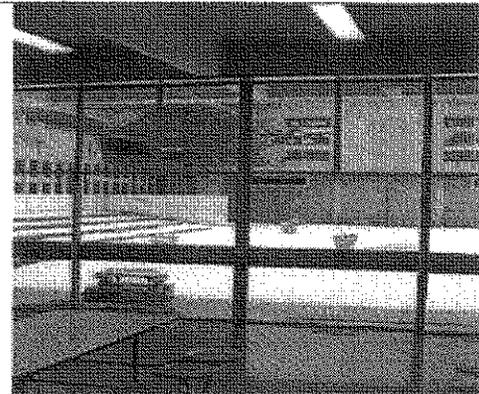


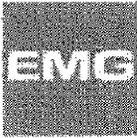
Photo #58: Large metal-framed sliding glass door within storefront glazing system in cafeteria



Photo #59: Example of office and classroom Plexiglass glazing



Photo #60: Example of classroom entrance with Plexiglass glazing



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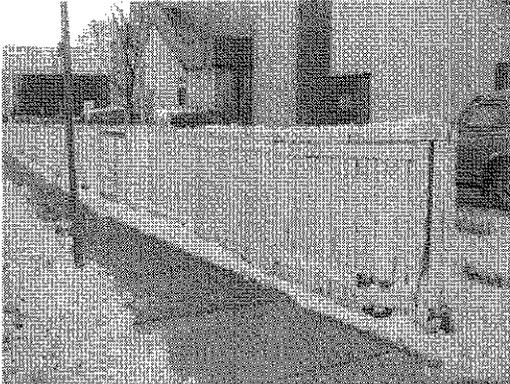


Photo #61: Deteriorated wood site fence on north side of facility



Photo #62: Partial overview parking lot at east side (behind) facility, maintained by city



Photo #63: Entrance into parking lot towards loading dock

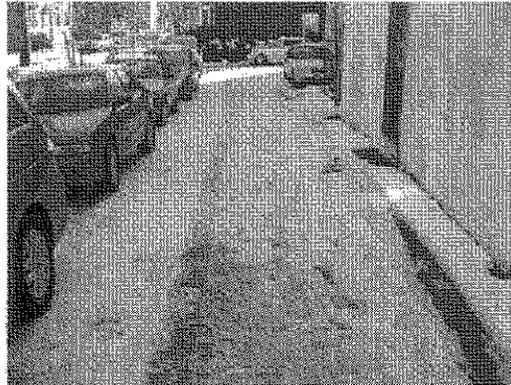


Photo #64: Small parking lot along side the gym on north side of the facility



Photo #65: Typical condition of observed asphalt pavement



Photo #66: Non-compliant handicapped parking space



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Photo #67: Parking lot at loading dock area

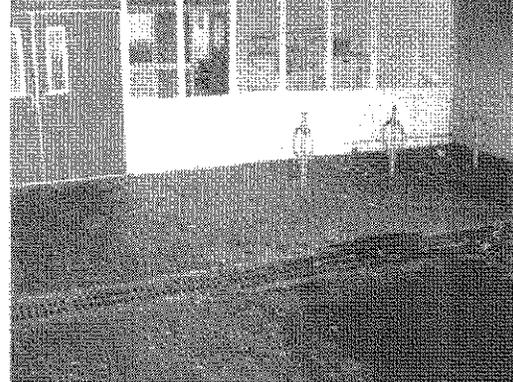


Photo #68: Grade drain at rear of the building the has a history of backing up with storm water



Photo #69: Ramp up to first floor entrance at rear of the building



Photo #70: Asphalt paving outside rear of the building at the ground floor level

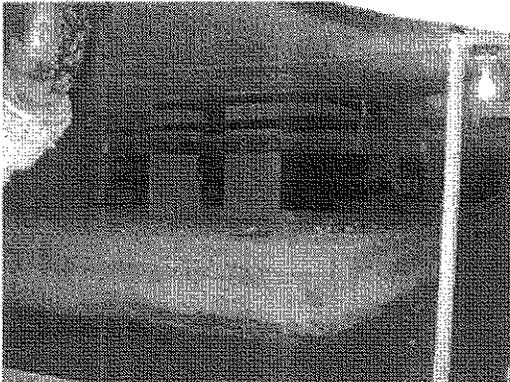


Photo #71: Crawl space foundations, footings and piers (Section 6.1)

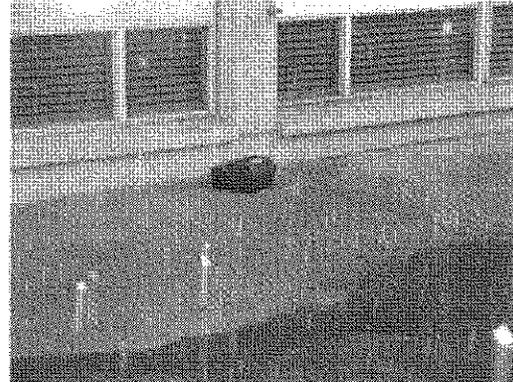


Photo #72: Exterior concrete walls atop foundation (Section 6.2)



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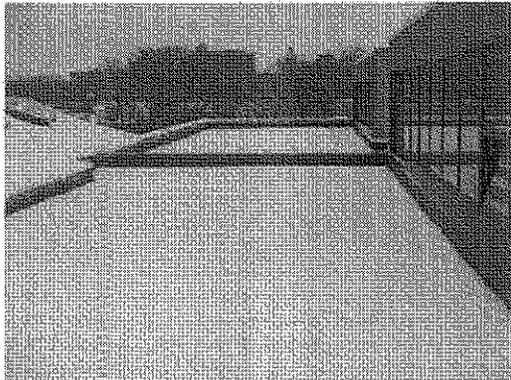


Photo #73: Typical roof field with parapets, coping, membrane up sides of parapets (Section 6.3)

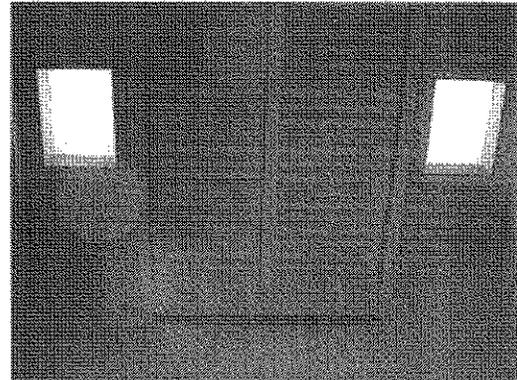


Photo #74: Metal deck roof over atrium - steel beams, skylights (Section 6.3)

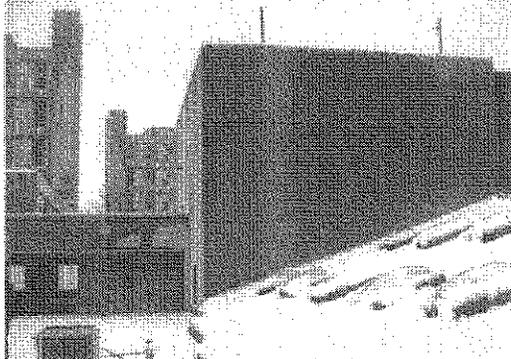


Photo #75: Skylight roof over atrium with standing-seam metal roof and condenser (Section 6.2, 7.1)

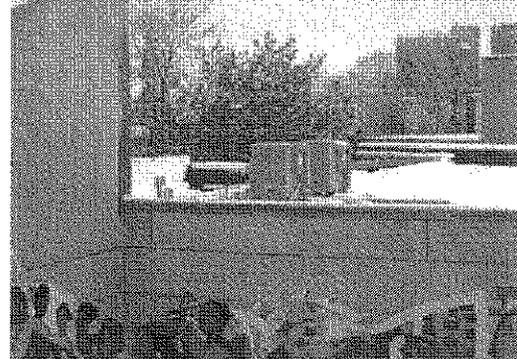


Photo #76: Remaining two condensers over auditorium (Section 7.1)

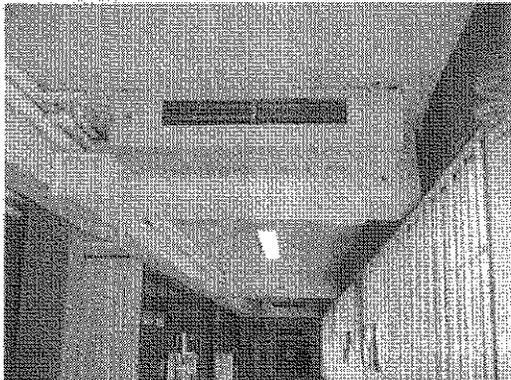


Photo #77: Typical air handler in corridor (Section 7.1)



Photo #78: Unit ventilator - gymnasium (Section 8.3)



DUE DILIGENCE FOR THE
LIFE CYCLE OF REAL ESTATE

EMG PHOTOGRAPHIC RECORD

Project No.: 75351.06R-007.017

Project Name: The King / Amigos Building

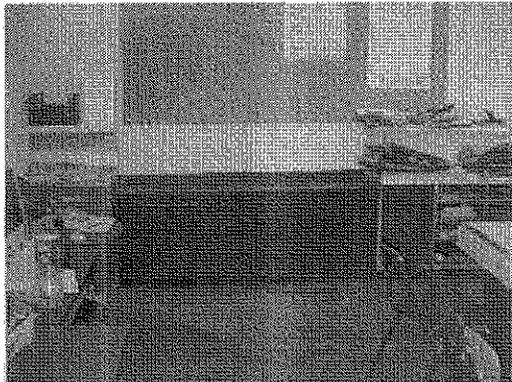


Photo #79: Unit ventilator - Art room (Section 8.3)

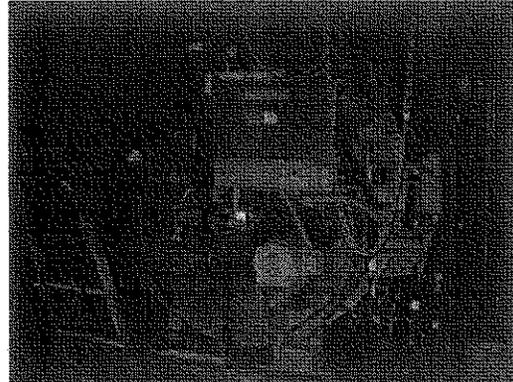


Photo #80: One of two Superior boilers - original to construction (Section 7.1)

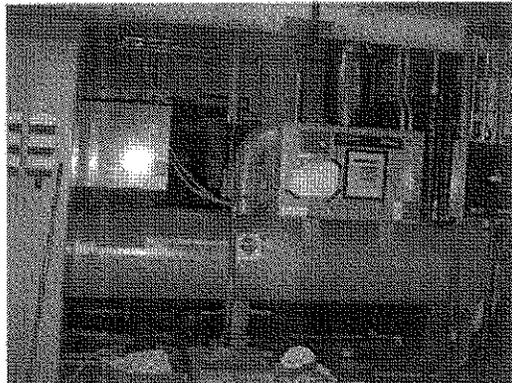


Photo #81: Trane Chiller installed 1997 (Section 7.1)

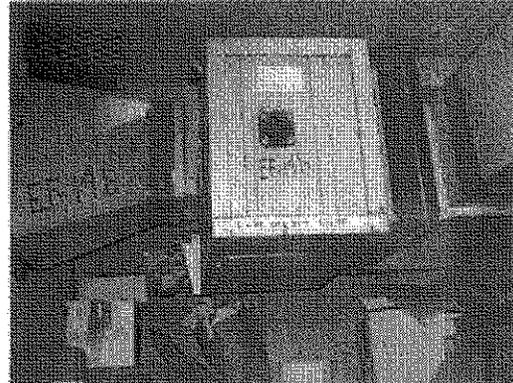


Photo #82: Ventilation ducting (Section 7.1)

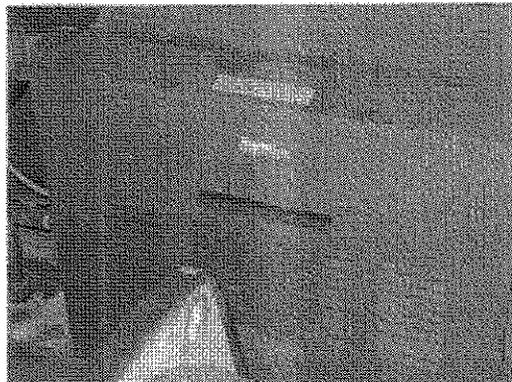


Photo #83: Raypak gas-fired heater for hot water (Section 7.1)

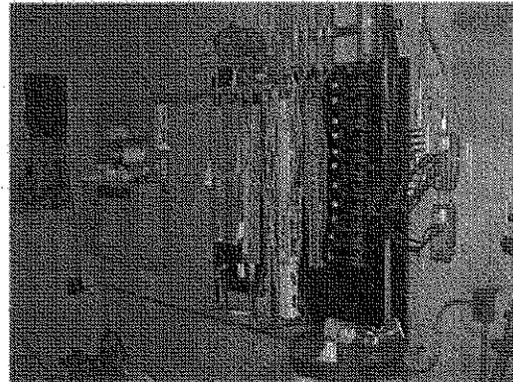


Photo #84: Electrical meter (at corner) and telephone wiring (Section 7.4, 7.7)



DUE DILIGENCE FOR THE
LIFE CYCLE OF REAL ESTATE

EMG PHOTOGRAPHIC RECORD

Project No.: 75351.06R-007.017

Project Name: The King / Amigos Building



Photo #85: Switch gear (Section 7.4)



Photo #86: Main switch, mechanical circuit breaker panel boxes (no covers) (Section 7.4)

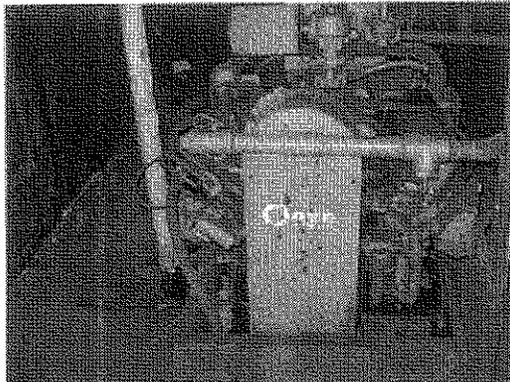


Photo #87: Onan 75-kVA diesel generator (Section 7.4)



Photo #88: Gas meter and feed piping (Section 7.3)

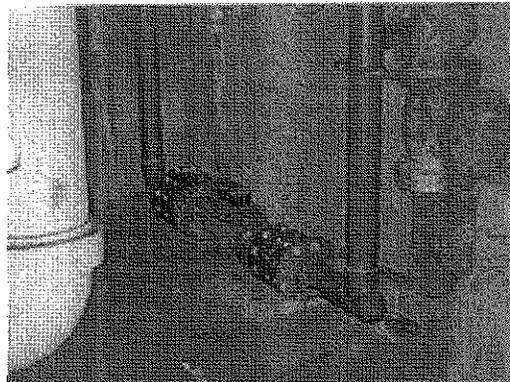


Photo #89: Water meter (Section 7.2)

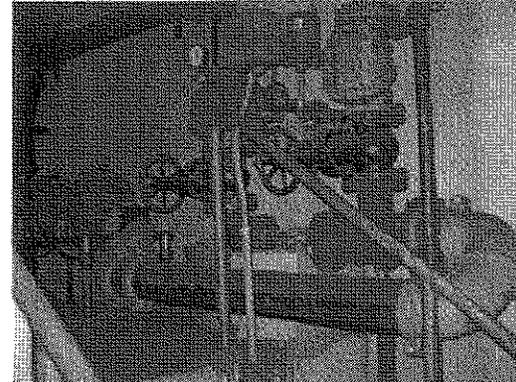


Photo #90: Sprinkler risers (Section 7.6)



DUE DILIGENCE FOR THE LIFE CYCLE OF REAL ESTATE

EMG PHOTOGRAPHIC RECORD

Project No.: 75351.06R-007.017

Project Name: The King / Amigos Building

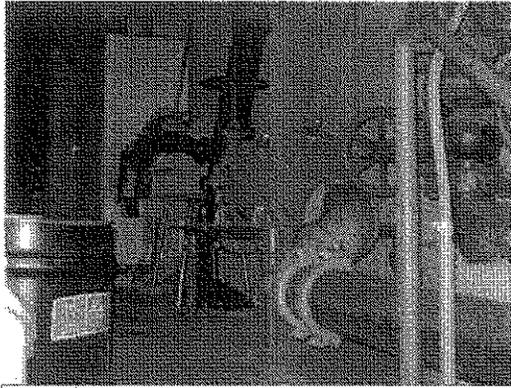


Photo #91: Risers and backflow preventers (Section 7.6)

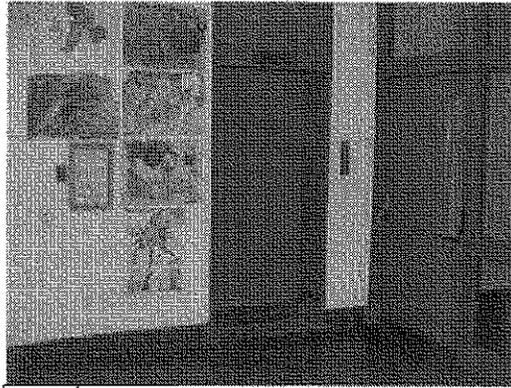


Photo #92: Elevator (Section 7.5)

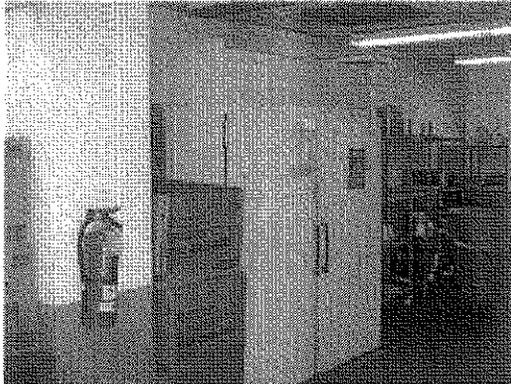


Photo #93: Double upright refrigerators - kitchen (Section 8.2)

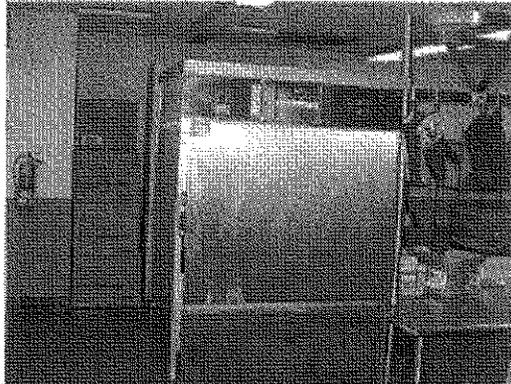


Photo #94: Work tables, dishwasher (Section 8.2)



Photo #95: Walk-in chiller room (Section 8.2)

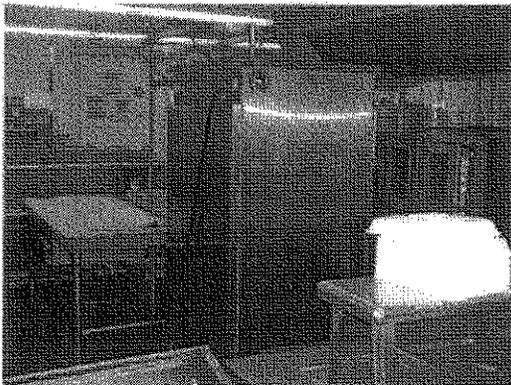


Photo #96: From cafeteria side - food service area (Section 8.2)



DUE DILIGENCE FOR THE
LIFE CYCLE OF REAL ESTATE

EMG PHOTOGRAPHIC RECORD

Project No.: 75351.06R-007.017

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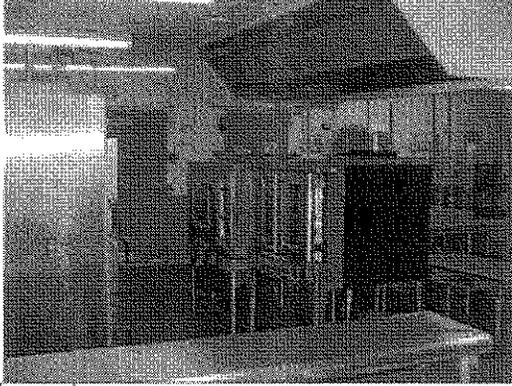


Photo #97: Blodgett gas-fired convection ovens (Section 8.2)

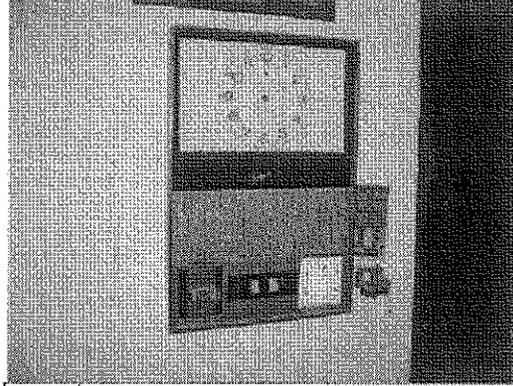


Photo #98: Typical room intercom (Section 7.7)

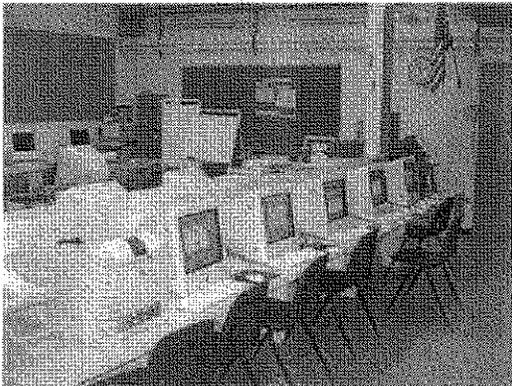


Photo #99: Computer room (Section 7.7)

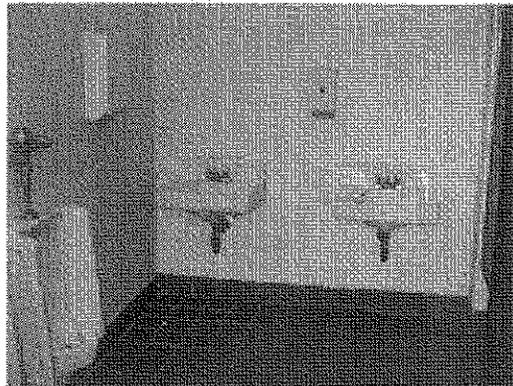


Photo #100: Typical boys' bathroom (Section 7.2)

CAPITAL NEEDS
ASSESSMENT

75351.06R-007.017

APPENDIX B:
SITE AND FLOOR PLANS

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APPENDIX C:
SUPPORTING DOCUMENTATION

Mechanical Equipment List

Project: Cambridge Public Schools
Location: King Amigos Elementary School, 100 Putnam Avenue
Project #: 75351.06R-007.017
Date: January 23-24, 2006 **Prepared by:** William S. Czepiel

Qty.	Item Description (Year, Type, Size, Location)	Manufacturer	Model Number	Serial Number
2	Oil-fired 8.05 BTUH Hot Water Boilers	Superior		
1	CentraVac (R-22) 340 ton Chiller	Trane		
1	Gas-fired 627,000 BTUH heater	Raypak		
1	2500-gallon capacity water storage tank			
27	188 MBH heat/40 MBH cooling Unit Ventilators (CV1)	Schemenauer	UNA-1000	
3	128 MBH heat/ 22 MBH cooling Unit Ventilators (CV2)	Schemenauer	UNA-300	
4	100 MBH heat/10 MBH cooling Unit Ventilators (CV3)	Schemenauer	UNA-100	
6	34 MBH heat/12 MBH cooling Unit Ventilators (CV4)	Schemenauer	UNA-500	
1	44 MBG heat/15 MBH cooling Unit Ventilators (CV5)	Schemenauer	CUHA-500	
5	188 MBH heat/40 MBH cooling Unit Ventilators (CV6-7)	Schemenauer	CUHA-1000	
1	240 MBH heat/48 MBH cooling Unit Ventilator (CV8)	Schemenauer	CUHA-1000	
19	188 MBH heat/40 MBH cooling Unit Ventilators (CV10-11-12)	Schemenauer	UHA-1000	
1	44 MBH heat/15 MBH cooling Unit Ventilator (CV13)	Schemenauer	UNA-500	
27	(FC-1) 1000 CFM 23.1 MBH heat/73 MBH cool fan coil units		NL	
1	(FC-2) 200 CFM 6.6 MBH heat/17.7 MBH cooling fan coil units			
15	(FC-4) 800 CFM 58.5 MBH heat/24.0 MBH cooling fan coil units			

Qty.	Item Description (Year, Type, Size, Location)	Manufacturer	Model Number	Serial Number
2	(FC-5) 200 CFM 17.6 MBH heat/6.6 MBH cooling fan coil units			
2	(FC-6) 1000 CFM 73 MBH heat/23.1 MBH cooling fan coil unit			
6	(FC-8) 600 CFM 44.7 MBH heat / 18.0 MBH cooling fan coil units			
1	(FC-9) 200 CFM 17.7 MBH heat / no cooling fan coil units			
2	(FC-10) 1000 CFM 73 MBH heat / 5 MBH cooling fan coil units			
2	(FC-11) 200 CFM 17.7 MBH heat / 1.5 MBH cooling fan coil units			
2	(FC-12) 500 CFM 44.7 MBH heat / no cooling fan coil units			
2	(FC-13) 1000 CFM 73 MBH heat / 5 MBH cooling fan coil units			
2	(FC-14) 1000 CFM 73 MBH heat / 5 MBH cooling fan coil units			
1	(AC-1) 8500 CFM 760 MBH heat/380 MBH cooling large capacity air handler - Cafeteria / Assembly		7216M2	
1	(AC-2) 6740 CFM 630 MBH heat/260 MBH cooling large capacity air handler - 4 th grade and miscellaneous		7215	
1	(AC-3) 3000 CFM 350 MBH heat/173 MBH cooling large capacity air handler - Skylight		7115	
1	(AC-4) 6200 CFM 700 MBH heat / 331 MBH cooling large capacity air handler - Auditorium		AU6L	
1	(AC-5) 6400 CFM 500 MBH heat / 125 MBH cooling large capacity air handler - Kitchen		7215	
2	(HV-1 & 2) 3000 CFM 250 MBH heat - Gymnasium		AU3L	

Qty.	Item Description (Year, Type, Size, Location)	Manufacturer	Model Number	Serial Number
1	(HV3) 6000 CFM 660 MBH heat - Exercise Room		7125	
1	(HV-4) 3000 CFM 150 MBH heat - Boys' and Girls' Locker Room		7115	
1	(HV-5) 4000 CFM 325 MBH heat - Boiler Room		7212	
3	Condensers			
2	Upright refrigerators			
2	Gas-fired Convection Ovens	Blodgett		
2	Walk-in freezer / chiller units			
1	Dishwasher			
1	Stainless steel double-bowl sink			
2	Butcher block work tables			
	Stainless Steel Shelving			
2	Fire sprinkler riser			
1	Backflow Preventers			
1	75-kVA Diesel Emergency Generator	Onan		
1	Central Alarm Panel	Fire Lite		
1	1500-lb 95 fpm Passenger Elevator			
1	Main Electrical Switchboard 1600 Amp	General Electric		

AEDALUS

King Amigos Elementary School
 HVAC Renovation
 Cambridge, MA
 MAIN SUMMARY

January 18, 2005
 Schematic Design Estimate

OPTION 3

GSF 144,985

ELEMENT	COST	COST/SF
02-SITWORK (DEMOLITION)	\$197,453	\$1.36
02-SITWORK TOTAL	\$197,453	\$1.36
03300-CONCRETE	\$14,100	\$0.10
03-CONCRETE TOTAL	\$14,100	\$0.10
04000-MASONRY	\$17,500	\$0.12
04-MASONRY TOTAL	\$17,500	\$0.12
05000-METALS	\$63,200	\$0.44
05-METALS TOTAL	\$63,200	\$0.44
06100-CARPENTRY	\$30,000	\$0.21
06-WOOD AND PLASTICS TOTAL	\$30,000	\$0.21
07100-INSULATION, CAULKING AND SEALANTS	\$31,700	\$0.22
07500-ROOFING AND FLASHING	\$55,700	\$0.38
07270-FIRESTOPPING	\$12,000	\$0.08
07-THERMAL AND MOISTURE PROTECTION TOTAL	\$99,400	\$0.69
08100-METAL DOORS AND FRAMES	\$5,100	\$0.04
08-DOORS AND WINDOWS	\$5,100	\$0.04
09250-GYPSUM DRYWALL	\$54,000	\$0.37
09501-ACT	\$17,500	\$0.12
09650-RESILIENT FLOORING	\$4,200	\$0.03
09901-PAINTING	\$83,520	\$0.58
09-FINISHES TOTAL	\$159,220	\$0.73
15400-PLUMBING	\$2,500	\$0.02
15500-HVAC	\$4,844,095	\$33.41
15-MECHANICAL TOTAL	\$4,846,595	\$33.41
16-ELECTRICAL	\$257,144	\$1.77
16-ELECTRICAL TOTAL	\$257,144	\$1.77
Subtotal	\$5,689,712	\$39.24
Overtime requirement 1,000 M/HRS	\$60,000	\$0.41
Design Contingency 10.0%	\$568,971	\$3.63
Subtotal	\$6,318,683	\$43.58
General Conditions Overhead & Profit 18%	\$1,137,363	\$7.84
Phasing 5%	\$315,934	\$2.18
Jan 2005 New Construction Total	\$7,771,980	\$53.61
Escalation to Dec 2005 10%	\$777,198	\$5.36
Dec 2005 Construction Total	\$8,549,178	\$58.97



King Amigos Elementary School
Cambridge, MA

January 18, 2005

Schematic Design Estimate
GSF 144,985

OPTION 3

ELEMENT	QUANTITY	UNIT	UNIT RATE	COST
02-SITWORK				
02070-SELECTIVE DEMOLITION				
Remove roof structure and covering, approx 160 sf	1	LS	\$960.00	\$960
Isolated ceiling removal (5,000	SF	\$3.00	\$15,000
Door and wall removal	1	LS	\$10,000.00	\$10,000
Cutting and patching for HVAC new installation	1	LS	\$35,000.00	\$35,000
Cutting and patching for HVAC demolition,	1	LS	\$10,000.00	\$10,000
Miscellaneous cutting and patching for electrical installation	1	LS	\$7,500.00	\$7,500
HVAC and Electrical demo included elsewhere				\$0
Unit vent cabinet demo and removal	70	EA	\$300.00	\$21,000
Temporary protection to existing floors, remove and clean on completion	36,246	SF	\$2.00	\$72,493
Temporary partitions, due to occupied building	3,000	SF	\$8.50	\$25,500
02-SITWORK TOTAL				\$197,453
03300-CONCRETE				
New housekeeping pads	0	SF	\$6.50	\$0
Fill holes where pipes removed, allowance	40	EA	\$40.00	\$1,600
Miscellaneous concrete repairs	1	LS	\$12,500.00	\$12,500
03-CONCRETE TOTAL				\$14,100
04000-MASONRY				
Masonry infill and repairs externally at unit ventilators	70	LS	\$250.00	\$17,500
MASONRY TOTAL				\$17,500
05000-METALS				
Structural steel sand metal deck for roof replacement	160	SF	\$20.00	\$3,200
Roof dunnage	15	TNS	\$4,000.00	\$60,000
Miscellaneous metals , none anticipated	1	LS	\$0.00	\$0
METALS TOTAL				\$63,200
06100-CARPENTRY				
Rough blocking allowance	1	LS	\$20,000.00	\$20,000
Pipe boxings and pipe chase cover panels allowance	1	LS	\$10,000.00	\$10,000
06-WOOD AND PLASTICS TOTAL				\$30,000
07100-INSULATION, CAULKING AND SEALANTS				
Miscellaneous insulation repairs	1	LS	\$5,000.00	\$5,000
Sheet metal in infill work	17	LOC	\$100.00	\$1,700
Caulking and sealants	1	LS	\$15,000.00	\$15,000
Pipe collars and miscellaneous flashing work	1	LS	\$10,000.00	\$10,000
INSULATION, CAULKING AND SEALANTS TOTAL				\$31,700
07500-ROOFING AND FLASHING				
New standing seam roofing system	160	SF	\$40.00	\$6,400
Flashings, etc	1	LS	\$500.00	\$500
Roofing repair allowance	1	LS	\$15,000.00	\$15,000
Equipment screens allowance	1,000	SF	\$27.00	\$27,000
Roof top curbs	400	LF	\$17.00	\$6,800
ROOFING AND FLASHING TOTAL				\$55,700



King Amigos Elementary School
Cambridge, MA

January 18, 2005

Schematic Design Estimate
GSF 144,985

OPTION 3

ELEMENT	QUANTITY	UNIT	UNIT RATE	COST
07270-FIRESTOPPING				
Allowance for firestopping new and existing penetrations	1	LS	\$12,000.00	\$12,000
07-THERMAL AND MOISTURE PROTECTION TOTAL				\$12,000
08100-METAL DOORS AND FRAMES				
New door, frame and hardware to cupboard	3	EA	\$800.00	\$2,400
Rehang existing door in new frame, provide new hardware	3	EA	\$900.00	\$2,700
METAL DOORS AND FRAMES TOTAL				\$5,100
09250-GYPSUM DRYWALL				
Plaster patching and repair work	1	LS	\$40,000.00	\$40,000
New stud partition in various locations, 1 hr fire rated	2,000	SF	\$7.00	\$14,000
GYPSUM DRYWALL TOTAL				\$54,000
09501-ACT				
Reinstate ACT where removed	5,000	SF	\$3.50	\$17,500
ACT TOTAL				\$17,500
09650-RESILIENT FLOORING				
Flooring repairs where unit ventilators removed	70	EA	\$60.00	\$4,200
RESILIENT FLOORING TOTAL				\$4,200
09901-PAINTING				
Touch up paint allowance	1	LS	\$50,000.00	\$50,000
Paint new pipes and ducting where exposed	1	LS	\$25,000.00	\$25,000
Boiler room repainting	1	LS	\$5,000.00	\$5,000
Paint new walls	4,000	SF	\$0.70	\$2,800
Paint new doors and frames	6	EA	\$120.00	\$720
PAINTING TOTAL				\$83,520
10240-LOUVRES				
New Louvres included in HVAC				
10240-LOUVRES TOTAL				
15-MECHANICAL RENOVATION				
PLUMBING				
Gas Piping	1	LS	\$2,500.00	\$2,500
PLUMBING TOTAL				\$2,500
HVAC				
Boiler 1.8 MMBT	10	EA	\$26,500.00	\$265,000
Expansion tank	2	EA	\$4,250.00	\$8,500
Separator	1	EA	\$1,950.00	\$1,950
Air Handling Unit: 150,000 CFM	1	LS	\$450,000.00	\$450,000
New Chiller 125 ton	1	LS	\$75,000.00	\$75,000
Chillers	-	LS	Existing	\$0
Cooling Towers 500 TON	1	EA	\$40,000.00	\$40,000
Pumps:				\$0
- P-1 20 HP 1020 GPM	1	EA	\$4,650.00	\$4,650
- P-2 & 4 40 HP 840 GPM	3	EA	\$6,500.00	\$19,500
- P-3 10 HP 366 GPM	1	EA	\$3,250.00	\$3,250
VAV Boxes	88	EA	\$850.00	\$74,800

ELEMENT	QUANTITY	UNIT	UNIT RATE	COST
Exhaust fans:	1	LS	\$75,000.00	\$75,000
Unit Heaters & Cabinet	15	LS	\$1,550.00	\$23,250
Sound Attenuators	1	LS	\$40,000.00	\$40,000
Register & Diffusers:	1	LS	\$100,000.00	\$100,000
Volume Dampers	1	LS	\$45,000.00	\$45,000
Fire Dampers	1	LS	\$15,000.00	\$15,000
Hot & Chilled water piping (4 pipe system)	1	LS	\$675,000.00	\$675,000
Fin tube radiation	1,050	LF	\$60.00	\$63,000
Equipment Hook-Ups:				
- Cooling Towers	1	EA	\$14,500.00	\$14,500
- Boilers	10	EA	\$1,850.00	\$18,500
- Chillers	1	LS	\$42,000.00	\$42,000
- 8" Pump	4	EA	\$18,200.00	\$72,800
- 6" Pump	1	EA	\$14,300.00	\$14,300
- Radiator	55	EA	\$710.00	\$39,050
- Unit Heaters	15	EA	\$675.00	\$10,125
- VAV	88	EA	\$650.00	\$57,200
Duct galvanized	165,000	LBS	\$7.50	\$1,237,500
Duct dishwasher s/s	650	LBS	\$12.50	\$8,125
Duct steel	-	LBS	\$8.50	\$0
Seal Ductwork	12,500	LF	\$0.90	\$11,250
Flex Duct	650	LF	\$8.50	\$5,525
Glycol System	1	LS	\$16,500.00	\$16,500
Duct Insulation	55,600	SF	\$2.20	\$122,320
Hot water piping insulation:	1	LS	\$150,000.00	\$150,000
Misc. Valves & specialties	1	LS	\$4,500.00	\$4,500
Flue for boilers & hot water heaters	1	LS	\$20,000.00	\$20,000
Coring & Cutting & Patching	1	LS	\$75,000.00	\$75,000
Demolition	1	LS	\$95,000.00	\$95,000
Demo Fuel Oil Tanks	1	LS	\$15,000.00	\$15,000
Seismic Restraints	1	LS	\$11,000.00	\$11,000
Controls (Johnson Controls)	1	LS	\$680,000.00	\$680,000
Testing & Balancing	1	LS	\$42,000.00	\$35,000
Rigging & Lifting	1	LS	\$85,000.00	\$85,000
Shop Drawing	1	LS	\$25,000.00	\$25,000
15500-HVAC TOTAL				\$4,844,095



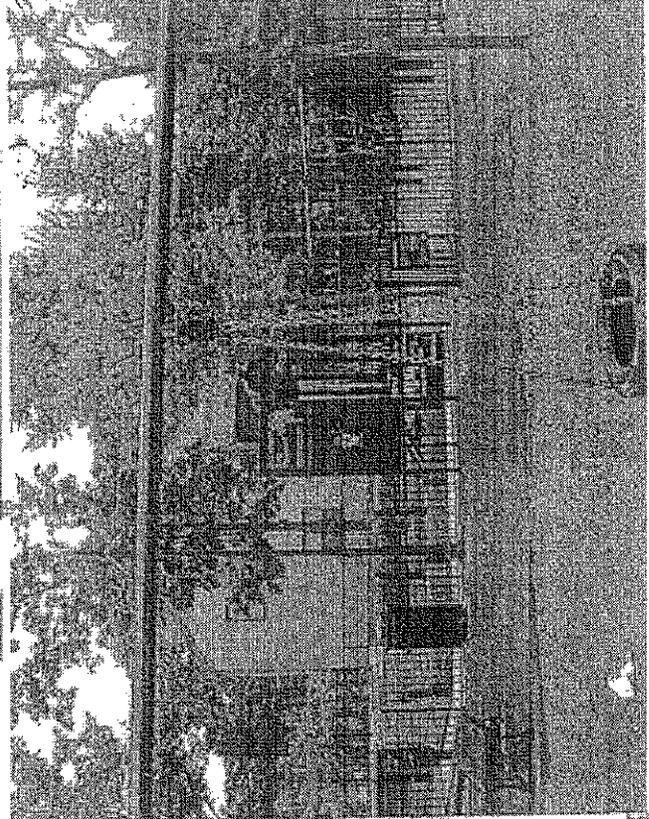
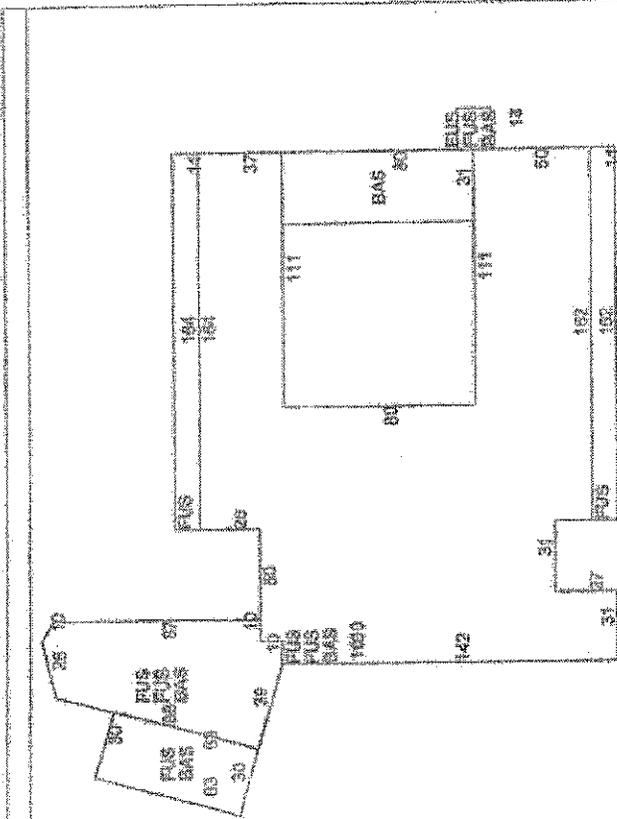
King Amigos Elementary School
Cambridge, MA

January 18, 2005

Schematic Design Estimate
GSF 144,985

OPTION 3

ELEMENT	QUANTITY	UNIT	UNIT RATE	COST
16-ELECTRICAL				
<i>Gear & Distribution</i>				
Work to existing electrical distribution system to accommodate				
HVAC upgrades	144,985	SF	\$0.40	\$57,994
<i>Equipment Wiring</i>				
Feed and connection to boiler	2	EA	\$1,200.00	\$2,400
Chiller and cooling tower ETR				
Feed and connection to pump 20HP	1	EA	\$1,000.00	\$1,000
Feed and connection to pump 40 HP	2	EA	\$1,750.00	\$3,500
Feed and connection to pump 10 HP	1	EA	\$1,000.00	\$1,000
Feed and connection to VAV	88	EA	\$500.00	\$44,000
Feed and connection to heat recovery and AHU	25	EA	\$3,000.00	\$75,000
Feed and connection to exhaust fan	35	EA	\$1,000.00	\$35,000
Feed and connection to unit heater	15	EA	\$750.00	\$11,250
Feed and connection to ATC equipment	1	LS	\$3,000.00	\$3,000
Feed and connection to actuators, louvers and misc equipment	1	LS	\$10,000.00	\$10,000
<i>Demolition</i>				
Electrical demolition	1	LS	\$10,000.00	\$10,000
<i>Miscellaneous</i>				
Fees & Permits	1	LS	\$3,000.00	\$3,000
Provisions for premium time work or phased construction have not been included within this estimate				
ELECTRICAL TOTAL				\$257,144



CONSTRUCTION DETAIL		CONSTRUCTION DETAIL (CONTINUED)	
Code	Description	Estimate Unit Price	Est. Qty
500	GLASS SCHOOL		
504	2 Compartment		
505	AVERAGE		
506	CONCRETE		
507	STEEL-BOARD		
508	AVERAGE		
509	PACKAGE-A/C		
510	MES		
511	AVERAGE		
512	CONCRETE		
513	EXEMPT-COM		
514	CONCRETE		
515	EXEMPT-COM		
516	CONCRETE		
517	EXEMPT-COM		
518	CONCRETE		
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530	CONCRETE		
531	EXEMPT-COM		
532	CONCRETE		
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Parcel ID: 9446

Accession # 122-129

Map No 201 & Sec B, 1 of 1

Lot No 1 of 1

File Name 011MAY03 13144

CURRENT OWNER
 CAMBRIDGE CITY OF
 MARTIN LUTHER KING SCHOOL
 159 THORNDIKE ST
 CAMBRIDGE, MA 02141
 Additional Owners:

UTILITIES
 9446
 122-186-122-187-122-190 Value Class 0
 GIS X-Y 769588382
 Contact N/A
 Contact P/A
 Census Tract 3835
 GIS ID: 122-129

EXEMPTIONS
 948
 5,616,200

ASSESSMENT DATA
 948
 5,616,200

RECORD OF OWNERSHIP
 BE-VOL/PAGE SALE DATE MA W/ SALE PRICE P.C.
 01/01/1908 Q Y

PREVIOUS ASSESSMENTS HISTORY
 14,121,500
 14,121,500

VISION

211
PT3007.MX

Year	Description	Amount	Code	Assessed Value	Yr. Code	Assessed Value	Yr. Code	Assessed Value	Yr. Code	Assessed Value
2006			948	5,616,200	0005	948	5,616,200	0005	948	5,616,200
2005			948	5,616,200	0005	948	5,616,200	0005	948	5,616,200
TOTAL										
14,121,500										

EXEMPTIONS

OTHER ASSESSMENTS

ASSESSING NEIGHBORHOOD

NOTES

APPRAISED VALUE SUMMARY

Appraised Bldg. Value (Care)	1,684,500
Appraised X P (B) Value (Bldg)	
Appraised OB (L) Value (Bldg)	
Appraised Land Value (Bldg)	
Special Land Value	
Total Appraised Parcel Value	14,121,500
Valuation Method:	
Adjustment:	
Net Total Appraised Parcel Value	14,121,500

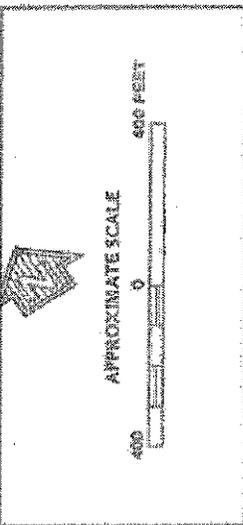
BUILDING PERMIT RECORD

Permit ID	Issue Date	Issue Description	Amount	Plan Date	City Code	Date Code	Comments
948	07/20/2003				RD	M	MAINTENANCE

LAND LINE VALUATION SECTION

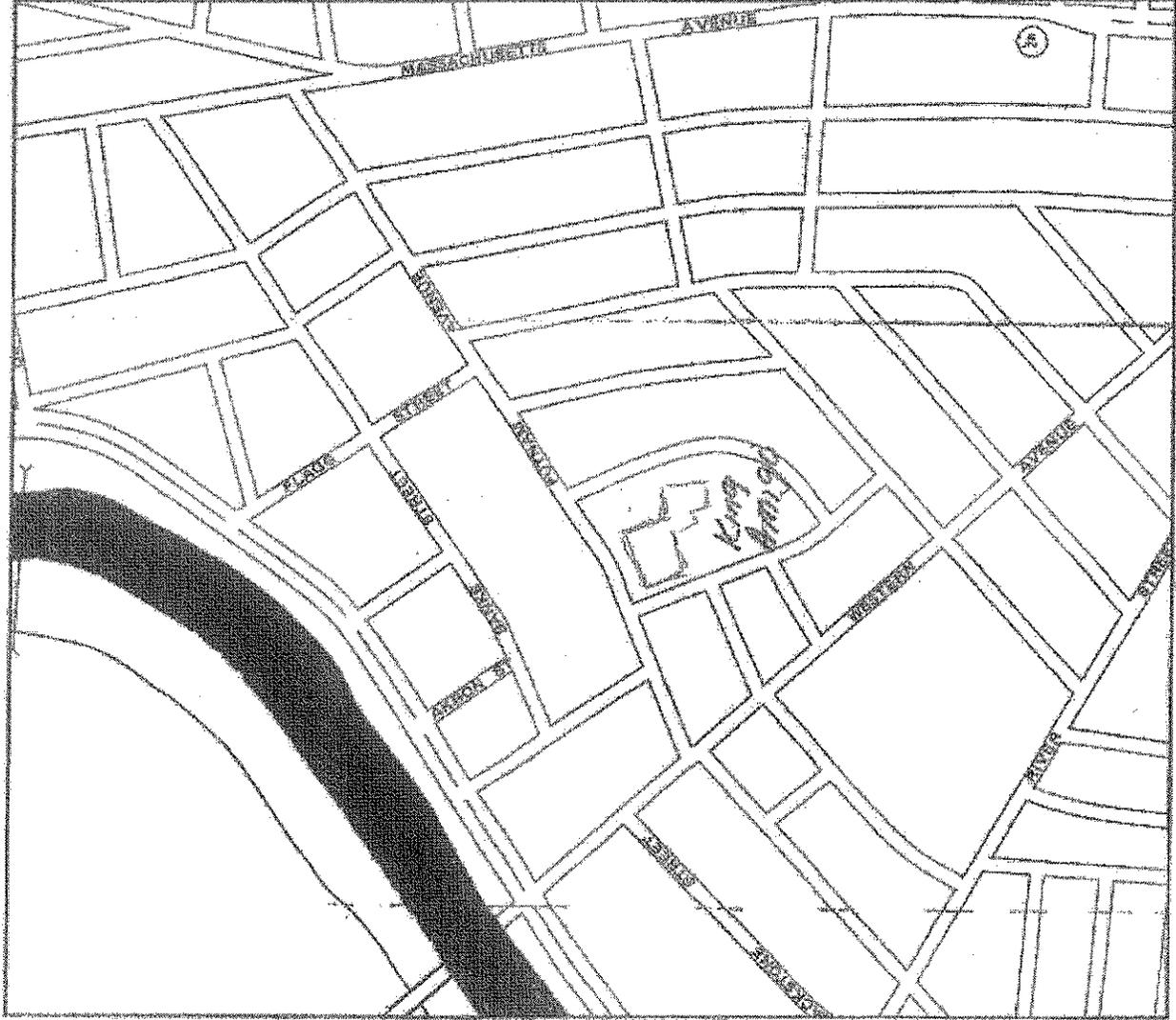
Zone ID	Permitting District	Units	Unit Price	1. Factor	2. A. L. C. Factor	3. B. A. L. C. Factor	Special Prorata	Adj. Unit Price	Land Value
948	BALEMP-COM	0	0	0	0	0			

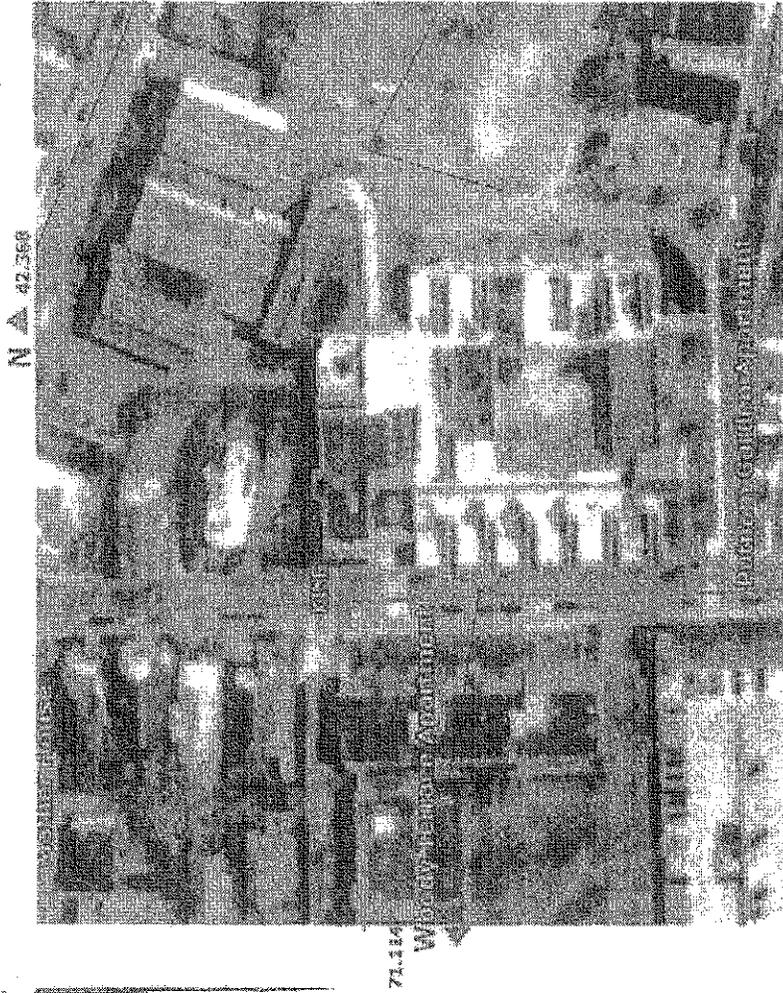
Year	Description	Amount	Code	Assessed Value	Yr. Code	Assessed Value	Yr. Code	Assessed Value	Yr. Code	Assessed Value
TOTAL										
14,121,500										



NATIONAL FLOOD INSURANCE PROGRAM
FIRM
 FLOOD INSURANCE RATE MAP
 CITY OF
 DORCHESTER,
 MASSACHUSETTS
 WOLBROOK COUNTY
 PANEL 7 OF 3
King Amigo
75357.06R-
007.017
 COMMUNITY-PANEL NUMBER
 250185 8002 9
 EFFECTIVE DATE:
 JULY 5, 1993
 Federal Emergency Management Agency

This is an official copy of a portion of the above referenced Flood Insurance Rate Map (FIRM) as published by the Federal Emergency Management Agency (FEMA). This map does not reflect changes or amendments which may have been made subsequent to the date of the original map. For the latest product information about National Flood Insurance Program Flood maps, check the FEMA Flood Map Store at www.fema.gov.





King Amigo
75351.06 R- 007.017.

CAPITAL NEEDS
ASSESSMENT

75351.06R-007.017

APPENDIX D:
EMG ABBREVIATED ACCESSIBILITY CHECKLIST



CAPITAL NEEDS
ASSESSMENT

75351.06R-007.017

Property Name: The King / Amigos Building

Date: January 23 and 24, 2006

Project Number: 75351.06R-007.017

EMC Abbreviated Accessibility Checklist					
	Building History	Yes	No	N/A	Comments
1.	Has the management previously completed an ADA review?		✓		
2.	Have any ADA improvements been made to the property?		✓		
3.	Does a Barrier Removal Plan exist for the property?		✓		
4.	Has the Barrier Removal Plan been reviewed/approved by an arms-length third party such as an engineering firm, architectural firm, building department, other agencies, etc.?			✓	
5.	Has building ownership or management received any ADA related complaints that have not been resolved?		✓		
6.	Is any litigation pending related to ADA issues?		✓		
	Parking	Yes	No	N/A	Comments
1.	Are there sufficient parking spaces with respect to the total number of reported spaces?		✓		See Section 3.2
2.	Are there sufficient van-accessible parking spaces available (96" wide/ 96" aisle for van)?		✓		See Section 3.2
3.	Are accessible spaces marked with the International Symbol of Accessibility? Are there signs reading "Van Accessible" at van spaces?		✓		
4.	Is there at least one accessible route provided within the boundary of the site from public transportation stops, accessible parking spaces, passenger loading zones, if provided, and public streets and sidewalks?	✓			
5.	Do curbs on the accessible route have depressed, ramped curb cuts at drives, paths, and drop-offs?	✓			
6.	Does signage exist directing you to accessible parking and an accessible building entrance?			✓	



CAPITAL NEEDS
ASSESSMENT

75351.06R-007.017

EMG Abbreviated Accessibility Checklist					
	Ramps	Yes	No	N/A	Comments
1.	If there is a ramp from parking to an accessible building entrance, does it meet slope requirements? (1:12)	✓			
2.	Are ramps longer than 6 ft complete with railings on both sides?	✓			
3.	Is the width between railings at least 36 inches?	✓			
4.	Is there a level landing for every 30 ft horizontal length of ramp, at the top and at the bottom of ramps and switchbacks?			✓	
Entrance/Exit					
		Yes	No	N/A	Comments
1.	Is the main accessible entrance doorway at least 32 inches wide?	✓			
2.	If the main entrance is inaccessible, are there alternate accessible entrances?			✓	
3.	Can the alternate accessible entrance be used independently?			✓	
4.	Is the door hardware easy to operate (lever/push type hardware, no twisting required, and not higher than 48 inches above the floor)?	✓			
5.	Are main entry doors other than revolving door available?	✓			
6.	If there are two main doors in series, is the minimum space between the doors 48 inches plus the width of any door swinging into the space?			✓	
Paths of Travel					
		Yes	No	N/A	Comments
1.	Is the main path of travel free of obstruction and wide enough for a wheelchair (at least 36 inches wide)?	✓			
2.	Does a visual scan of the main path reveal any obstacles (phones, fountains, etc.) that protrude more than 4 inches into walkways or corridors?		✓		
3.	Are floor surfaces firm, stable, and slip resistant (carpets wheelchair friendly)?	✓			
4.	Is at least one wheelchair-accessible public telephone available?	✓			
5.	Are wheelchair-accessible facilities (toilet rooms, exits, etc.) identified with signage?	✓			



CAPITAL NEEDS ASSESSMENT

75351.06R-007.017

EMG Abbreviated Accessibility Checklist					
6.	Is there a path of travel that does not require the use of stairs?	✓			
7.	If audible fire alarms are present, are visual alarms (strobe light alarms) also installed in all common areas?		✓		See Section 3.2
Elevators		Yes	No	N/A	Comments
1.	Do the call buttons have visual signals to indicate when a call is registered and answered?	✓			
2.	Is the "UP" button above the "DOWN" button?	✓			
3.	Are there visual and audible signals inside cars indicating floor change?		✓		See Section 3.2
4.	Are there standard raised and Braille marking on both jambs of each host way entrance?	✓			
5.	Do elevator doors have a reopening device that will stop and reopen a car door if an object or a person obstructs the door?	✓			
6.	Do elevator lobbies have visual and audible indicators of car arrival?		✓		See Section 3.2
7.	Does the elevator interior provide sufficient wheelchair turning area (51" x 68")?	✓			
8.	Are elevator controls low enough to be reached from a wheelchair (48 inches front approach/54 inches side approach)?	✓			
9.	Are elevator control buttons designated by Braille and by raised standard alphabet characters (mounted to the left of the button)?	✓			
10.	If a two-way emergency communication system is provided within the elevator cab, is it usable without voice communication?	✓			
Restrooms		Yes	No	N/A	Comments
1.	Are common area public restrooms located on an accessible route?	✓			
2.	Are pull handles push/pull or lever type?	✓			
3.	Are there audible and visual fire alarm devices in the toilet rooms?	✓			
4.	Are corridor access doors wheelchair-accessible (at least 32 inches wide)?	✓			



CAPITAL NEEDS ASSESSMENT

75351.06R-007.017

EMG Abbreviated Accessibility Checklist				
5.	Are public restrooms large enough to accommodate a wheelchair turnaround (60" turning diameter)?	✓		
6.	In unisex toilet rooms, are there safety alarms with pull cords?		✓	
7.	Are stall doors wheelchair accessible (at least 32" wide)?		✓	See Section 3.2
8.	Are grab bars provided in toilet stalls?		✓	See Section 3.2
9.	Are sinks provided with clearance for a wheelchair to roll under (29" clearance)?		✓	See Section 3.2
10.	Are sink handles operable with one hand without grasping, pinching or twisting?	✓		
11.	Are exposed pipes under sink sufficiently insulated against contact?	✓		
12.	Are soap dispensers, towel, etc. reachable (48" from floor for frontal approach, 54" for side approach)?	✓		
13.	Is the base of the mirror no more than 40" from the floor?	✓		



APPENDIX E:
PRE SURVEY QUESTIONNAIRE AND
DOCUMENTATION REQUEST CHECKLIST

PRE - SURVEY
QUESTIONNAIRE

PRE-SURVEY QUESTIONNAIRE

This questionnaire was completed by the property owner, the owner's designated representative, or someone knowledgeable about the subject property. *This completed form was presented to EMG's Field Observer on the day of the site visit.*

Project Name:	<u>The King / Amigos Building</u>	Project Number:	<u>75351.06R-007.017</u>
Person completing form:	<u>Verbally w/ maint. staff</u>	Date:	<u>January 17, 2006</u>
Association with Project:	<u>Maintenance dept</u>	Phone Number:	<u>617.349.6855</u>
Years associated w/Proj.:	<u>Varies</u>	Fax Number:	<u>617.349.6477</u>
Current Owner:	<u>Cambridge Schools</u>	Estimated Value:	<u>Unknown</u>

Unk = Unknown, NA = Not Applicable

	Yes	No	Unk	NA	Comments
1. Does the property have full-time maintenance personnel on site?		✓			
2. Have there been any capital improvements in the last five years?	✓				
If so, are details available?					
3. Are there any unresolved building, fire, or zoning code issues?		✓			
If so, what additional info is available?					
4. Are there any "down", unusable units?		✓			
5. Are there any problems or hazards at the property?	✓				
6. Has the property ever had an ADA accessibility review?	✓				
If so, is a copy available?		No			
7. Does a Barrier removal plan exist for the property?				✓	
8. Are there any unresolved accessibility issues at the property?	✓				
9. Is there any pending litigation concerning the property?		✓			
10. Is site drainage adequate?		✓			Grade drains drain slow = water backup
11. Has a termite inspection occurred within the last year?		✓			
Is a copy of an inspection report available?					
12. Are there any problems with foundations or structures?		✓			
If so, are there plans to address?					
13. Is there any water infiltration in basements or crawl spaces?	✓				Water, at times, needs to be pumped out of gym crawl space
14. Are there any wall or window leaks?	✓				Windows in stairways and 2 nd floor corridor.
15. Are there any poorly insulated areas?		✓			
16. Are there any current roof leaks at the property?		✓			
17. Are any roof finishes more than ten years old?		✓			
18. Is the roofing covered by a warranty or bond?			✓		
19. Is Fire Retardant Treated (FRT) plywood used at the property?		✓			



PRE-SURVEY

QUESTIONNAIRE

	Yes	No	Unk.	NA	Comments
20. Does the property have an exterior insulation and finish system (EIFS) with a synthetic stucco finish		✓			
21. Do the utilities (electric, gas, sewer, water) provide adequate service?	✓				
22. Is the property served by an on site water system?		✓			
23. Is the property served by an on site septic system?		✓			
24. If present, do irrigation systems function properly?				✓	
25. Are HVAC systems at the property inspected and maintained, at a minimum, annually?	✓				
26. Is the HVAC equipment more than ten years old?	✓				
27. Do any of the HVAC systems use R-11, 12, or 22 refrigerants?				✓	
28. Do tenants contract for their own HVAC work?				✓	
29. Has any HVAC system, or any other part of the property, ever contained visible suspect mold growth? If so, where and when?		✓			
30. Has the property ever been tested for indoor air quality or suspect mold? If so, where and when? Results?		✓			
31. Is there a response action in place to prevent mold growth or respond to its presence? If so, describe. Is a copy available?		✓			
32. Are the water heaters/boilers more than ten years old?	✓				
33. Is polybutylene piping used at the property?		✓			
34. Are there any plumbing leaks or water pressure problems?		✓			
35. Are there any leaks or pressure problems with natural gas service?		✓			
36. Does any part of the electrical system use aluminum wiring?		✓			
37. Do Residential units have a min. of 60-Amp service or Commercial units have a min. 200-Amp service?				✓	
38. Has elevator equipment been replaced in the last ten years?	✓				
39. Are the elevators maintained by a contractor on a regular basis?	✓				
40. Is the elevator emergency communication equipment functional?	✓				
41. Is the elevator emergency communication equipment ADA compliant?	✓				
42. Have the fire/life safety systems been inspected within the last year?	✓				
43. Are there any smoke evacuation or pressurization systems?		✓			
44. Are there any recalled Omega or Central brand fire sprinkler heads that have not yet been replaced?				✓	
45. Are there any emergency electrical generators?	✓				
46. Are the generators maintained on a regular basis?	✓				
47. Do tenants contract for their own improvement work?				✓	
48. Are tenants responsible for any roof, HVAC, or exterior wall maintenance, repair, or replacement? If so, what, where and how?				✓	



PRE-SURVEY

QUESTIONNAIRE

	Yes	No	Und	NA	Comments
49. Have there been previous due diligence, engineering, environmental, or geological studies done? If so, are copies available? No	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
50. Is there anything else that EMC should know about when assessing this property? If so, what?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	



REQUEST FOR

DOCUMENTATION

On the day of the site visit, provide EMG's Field Observer access to all of the available documents listed below. Provide copies if possible.

INFORMATION REQUIRED

1. All available construction documents (blueprints) for the original construction of the building or for any tenant improvement work or other recent construction work.
2. A site plan, preferably 8 1/2" X 11", which depicts the arrangement of buildings, roads, parking stalls, and other site features.
3. For commercial properties, provide a tenant list which identifies the names of each tenant, vacant tenant units, the floor area of each tenant space, and the gross and net leasable area of the building(s).
4. For apartment properties, provide a summary of the apartment unit types and apartment unit type quantities, including the floor area of each apartment unit as measured in square feet.
5. For hotel or nursing home properties, provide a summary of the room types and room type quantities.
6. Copies of Certificates of Occupancy, building permits, fire or health department inspection reports, elevator inspection certificates, roof or HVAC warranties, or any other similar, relevant documents.
7. The names of the local utility companies which serve the property, including the water, sewer, electric, gas, and phone companies.
8. The company name, phone number, and contact person of all outside vendors who serve the property, such as mechanical contractors, roof contractors, fire sprinkler or fire extinguisher testing contractors, and elevator contractors.
9. A summary of recent (over the last 5 years) capital improvement work which describes the scope of the work and the estimated cost of the improvements. Executed contracts or proposals for improvements. Historical costs for repairs, improvements, and replacements.
10. Records of system & material ages (roof, MEP, paving, finishes, furnishings).
11. Any brochures or marketing information.
12. Appraisal, either current or previously prepared.
13. Current occupancy percentage and typical turnover rate records (for commercial and apartment properties).
14. Previous reports pertaining to the physical condition of property.
15. ADA survey and status of improvements implemented.
16. Current / pending litigation related to property condition.

Your timely compliance with this request is greatly appreciated.



APPENDIX F:
ACRONYMS AND OUT OF SCOPE ITEMS

ASTM E2018-01 ACRONYMS

ADA - The Americans with Disabilities Act
ASTM - American Society for Testing and Materials
BOMA - Building Owners & Managers Association
BUR - Built-up Roofing
DWV - Drainage, Waste, Ventilation
EIFS - Exterior Insulation and Finish System
EMF - Electro Magnetic Fields
EMS - Energy Management System
EUL - Expected Useful Life
FEMA - Federal Emergency Management Agency
FFHA - Federal Fair Housing Act
FIRMS - Flood Insurance Rate Maps
FRT - Fire Retardant Treated
FOIA - U.S. Freedom of Information Act (5 USC 552 et seq.) and similar state statutes.
FOIL - Freedom of Information Letter
FM - Factory Mutual
HVAC - Heating, Ventilating and Air-conditioning
IAQ - Indoor Air Quality
MEP - Mechanical, Electrical & Plumbing
NFPA - National Fire Protection Association
PCR - Property Condition Report
PML - Probable Maximum Loss
RTU - Rooftop Unit
RUL - Remaining Useful Life
STC - Sound Transmission Class
UBC - Uniform Building Code

CAPITAL NEEDS ASSESSMENT

75351.06R-007.017

Ref.	Section 8: ASIM 2018-01 Out of Scope Items
8.4.1.8	Utilities: Operating conditions of any systems or accessing manholes or utility pits.
8.4.2.2	Structural Frame and Building Envelope: Entering of crawl or confined space areas (however, field observer should observe conditions to the extent easily visible from the point of access to the crawl or confined space areas), determination of previous substructure flooding or water penetration unless easily visible or if such information is provided.
8.4.3.2	Roofs: Walking on pitched roofs, or any roof areas that appear to be unsafe, or roofs with no built-in access, or determining any roofing design criteria.
8.4.4.2	Plumbing: Determining adequate pressure and flow rate, fixture-unit values and counts, or verifying pipe sizes and verifying the point of discharge for underground systems.
8.4.5.2	Heating: Observation of flue connections, interiors of chimneys, flues or boiler stacks, or -owned or maintained equipment.
8.4.6.2	Air-conditioning and Ventilation: Evaluation of process related equipment or condition of owned/maintained equipment.
8.4.7.2	Electrical: Removing of electrical panel covers, except if removed by building staff, EMF issues, electrical testing, or operating of any electrical devices. Process related equipment or owned equipment.
8.4.8.2	Vertical Transportation: Examining of cables, sheaves, controllers, motors, inspection tags, or entering elevator/escalator pits or shafts
8.4.9.1	Life Safety / Fire Protection: Determining NFPA hazard classifications, classifying, or testing fire rating of assemblies.
8.4.10.2	Interior Elements: Operating appliances or fixtures, determining or reporting STC (Sound Transmission Class) ratings, and flammability issues/regulations.

Ref.	Section 11: ASIM 2018-01 Out of Scope Items
11.1	Activity Exclusions - The activities listed below are generally excluded from or otherwise represent limitations to the scope of a Comprehensive Capital Needs Assessment prepared in accordance with this guide. These should not be construed as all-inclusive or implying that any exclusion not specifically identified is a Comprehensive Capital Needs Assessment requirement under this guide.
11.1.1	Removing or relocating materials, furniture, storage containers, personal effects, debris material or finishes; conducting exploratory probing or testing; <i>dismantling</i> or operating of equipment or appliances; or disturbing personal items or property which obstructs access or visibility.
11.1.2	Preparing <i>engineering</i> calculations (civil, structural, mechanical, electrical, etc.) to determine any <i>system's</i> , <i>component's</i> , or equipment's adequacy or compliance with any specific or commonly accepted design requirements or <i>building codes</i> , or preparing designs or specifications to remedy any <i>physical deficiency</i> .
11.1.3	Taking measurements or quantities to establish or confirm any information or representations provided by the owner or user such as: size and dimensions of the <i>subject property</i> or <i>subject building</i> , any legal encumbrances such as easements, dwelling unit count and mix, <i>building property</i> line setbacks or elevations, number and size of parking spaces, etc.
11.1.4	Reporting on the presence or absence of pests such as wood damaging organisms, rodents, or insects unless evidence of such presence is readily apparent during the course of the <i>field observer's walk-through survey</i> or such information is provided to the <i>consultant</i> by the <i>owner</i> , <i>user</i> , property manager, etc. The <i>consultant</i> is not required to provide a <i>suggested remedy</i> for treatment or remediation, determine the extent of infestation, nor provide <i>opinions of probable costs</i> for treatment or remediation of any deterioration that may have resulted.
11.1.5	Reporting on the condition of subterranean conditions such as underground utilities, separate sewage disposal systems, wells; systems that are either considered process-related or peculiar to a specific tenancy or use; waste water treatment plants; or items or systems that are not permanently installed.



CAPITAL NEEDS ASSESSMENT

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Section 11: ASHRAE 2011-03 Guide of Scope Items	
11.1.6	Entering or accessing any area of the premises deemed to pose a threat of <i>dangerous or adverse conditions</i> with respect to the <i>field observer</i> or to perform any procedure, which may damage or impair the <i>physical integrity of the property, any system, or component</i> .
11.1.7	Providing an opinion on the condition of any <i>system or component</i> , which is <i>shutdown</i> , or whose operation by the <i>field observer</i> may significantly increase the registered electrical demand-load. However, <i>consultant</i> is to provide an opinion of its physical condition to the extent reasonably possible considering its <i>age, obvious condition, manufacturer, etc.</i>
11.1.8	Evaluating acoustical or insulating characteristics of <i>systems or components</i> .
11.1.9	Providing an opinion on matters regarding security of the <i>subject property</i> and protection of its occupants or users from unauthorized access.
11.1.10	Operating or witnessing the operation of lighting or other <i>systems</i> typically controlled by time clocks or that are normally operated by the building's operation staff or service companies.
11.1.11	Providing an environmental assessment or opinion on the presence of any environmental issues such as asbestos, hazardous wastes, toxic materials, the location and presence of designated wetlands, IAQ, etc.
11.2	Warranty, Guarantee and Code Compliance Exclusions - By conducting a Comprehensive Capital Needs Assessment and preparing a PCR, the <i>consultant</i> is merely providing an opinion and does not warrant or guarantee the present or future condition of the <i>subject property</i> , nor may the Comprehensive Capital Needs Assessment be construed as either a warranty or guarantee of any of the following:
11.2.1	any <i>system's or component's</i> physical condition or use, nor is a Comprehensive Capital Needs Assessment to be construed as substituting for any <i>system's or equipment's</i> warranty transfer inspection;
11.2.2	compliance with any federal, state, or local statute, ordinance, rule or regulation including, but not limited to, <i>building codes, safety codes, environmental regulations, health codes or zoning ordinances</i> or compliance with <i>trade/design standards</i> or the standards developed by the insurance industry. However, should there be any conspicuous <i>material present violations observed or reported</i> based upon <i>actual knowledge of the field observer or the PCR reviewer</i> , they should be identified in the PCR;
11.2.3	compliance of any material, equipment, or <i>system</i> with any certification or actuation rate program, vendor's or manufacturer's warranty provisions, or provisions established by any standards that are related to insurance industry acceptance/approval such as FM, State Board of Fire Underwriters, etc.
11.3	Additional/General Considerations:
11.3.1	Further Inquiry - There may be physical condition issues or certain physical improvements at the <i>subject property</i> that the parties may wish to assess in connection with a <i>commercial real estate transaction</i> that are outside the scope of this <i>guide</i> . Such issues are referred to as non-scope considerations and if included in the PCR, should be identified under Section 10.9.
11.3.2	Non-Scope Considerations - Whether or not a <i>user</i> elects to inquire into non-scope considerations in connection with this <i>guide</i> is a decision to be made by the <i>user</i> . No assessment of such non-scope considerations is required for a Comprehensive Capital Needs Assessment to be conducted in compliance with this <i>guide</i> .



APPENDIX G:
RESUMES FOR REPORT REVIEWER AND FIELD
OBSERVER

BILL CHAMPION, PMP*Program Manager**Cost Segregation Manager***Education**

- MBA from the University of Rochester (Simon)
- MS in Mechanical Engineering from the State University of New York at Buffalo
- BS in Mechanical Engineering from the State University of New York at Buffalo

Project Experience

- *Housing Authority of the City of Pittsburgh, Pittsburgh, PA* – Mr. Champion was a member of the Quality Assurance Review Team for this Physical Needs Assessment portfolio that encompassed over 6,114 housing units within 20 separate communities in City of Pittsburgh, Pennsylvania. The objective of the PNA was to provide a general description of all physical improvements that the Client would need to undertake to bring its properties, including dwellings and non-dwellings structures, to a level that will provide safe, decent and sanitary living conditions for the residents. Mr. Champion utilized his engineering expertise to ensure that the methodology and protocol were not compromised during the execution of the assessment.
- *George Mason University, Fairfax, VA* - As Program Manager, Mr. Champion was responsible for meeting with the Client and developing a specific program that exceeded the Client's expectations. The program was designed to provide facility condition assessments and prepare a database for tracking, systems, building components, deficiencies and replacements. This database was customized further to include a detailed equipment inventory. This database was designed based on Client input and the end user in mind. Mr. Champion's ability to troubleshoot issues allowed EMG to conduct this program effectively and maintain the schedule and budget.
- *University of Virginia, Charlottesville, VA* – Mr. Champion performed Facilities Condition Audits on academic buildings on the campus of The University of Virginia. He evaluated building condition and systems, outlined physical deficiencies and gave recommendations for prioritizing them to maximize safety and minimize long-term costs.

Industry Tenure

- A/E: 1994
- EMG: August, 2002

Related Experience

- Multifamily Housing Portfolios
- Government Agency Portfolios
- K-12 Education Portfolios
- Higher Education Portfolios
- Retail Portfolios
- Industrial Portfolios

Industry Experience

- Multi-family Housing
- Cost Segregation
- Government
- Retail
- Industrial
- K-12 Education
- Higher Education

Active Licenses / Registrations

- Certified Project Management Professional (PMP) by the Project Management Institute, # 50241
- Engineer in Training in the State of New York, # 046094
- Member- American Society of Mechanical Engineers

Regional Location

- Baltimore, Maryland

LLOYD PFLUG, RA

Project Manager

Education

- Bachelor of Arts, Architecture/University of Arizona, 1983

Project Experience

- *Baltimore Archdiocese, Baltimore, MD* - Mr. Pflug has performed Property Condition Evaluations (PCEs) on numerous Baltimore Archdiocese properties, including churches, convents, rectories and school, for the purposes of assisting the school system Facilities Management department in completing future Capital Expense planning.
- *Baltimore City Public School System, Baltimore, MD* - Mr. Pflug has performed Property Condition Evaluations (PCEs) on numerous Baltimore Public School properties, including elementary, middle and high schools, for the purposes of assisting the school system Facilities Management department in completing future Capital Expense planning.
- *Council Chambers, Tucson, AZ* - Mr. Pflug served as the Project Manager for the deficiencies analysis of the current council chambers as well as the design study for the proposed council chambers. This project, expected to cost over \$3 million, will move the council and support offices out of an obsolete facility into one that is a state-of-the-art council chambers.
- *City Government Facilities, Tucson, AZ* - Mr. Pflug served as the Project Manager in coordinating a comprehensive ADA compliance survey of over 100 government buildings for the City of Tucson. This survey was executed utilizing the current Title II ADA guidelines for Government Facilities. This effort resulted in a detailed compliance plan completed for each public area within all of the City of Tucson government buildings.
- *Morningside House of Leesburg, Leesburg, VA* - As a Field Technician, Mr. Pflug performed a Property Condition Assessment of this 70,000 square foot assisted living facility. He reviewed the condition of the building structure and systems and developed a thorough report. His work helped EMG complete this project on schedule and within the budget.

Industry Tenure

- A/E: 1982
- EMG: September, 1997

Related Experience

- Housing / Elderly Housing
- Baltimore Archdiocese
- City Government Facilities
- Educational Facility Portfolio

Industry Experience

- Government Facilities
- Office
- Industrial
- Retail
- Healthcare
- Multi-family Housing
- K-12

Active Licenses/Registration

- Professional registered Architect in Maryland, #12088 and in Arizona, #24305

Special Skills & Training

- Trained and certified on VFA building analysis software, 2001 and 2002.
- Education: 1997-1998/Facilities Management coursework, George Mason University
- Proficient in ADA and BOMA compliance studies.

Regional Location

- Baltimore, MD



EMG RESUME

WILLIAM S. CZEPIEL, P.E.

Project Manager

Education

Bachelor of Science in Civil Engineering, Northeastern University, Boston, MA

Project Experience

- *Bank, East Providence RI* – Mr. Czepiel, a Civil Engineer and Licensed Professional Fire Protection Engineer, served as a Fire Protection Consultant and performed an insurance assay to ascertain the insurability of the facility and the efficacy of its fire protection systems. His expertise and field experience lead to the designation of several areas of concern, including a severely decreased water supply from the City supply, which seriously impacted upon that available to provide fire protection for the entire office building.
- *Aerostructures Corporation, Nashville, TN* – Mr. Czepiel conducted a building survey at this 100,000 sf manufacturer of airplane wings, which included the review of numerous prior reports and documentation, a review of historical information, and on-site activities. This investigation identified an on-site problem with the structural system of the plant, primarily the walls, which contained various exposed combustible foam materials sprayed on the interior metal walls. The safety and toxicity of these materials was undetermined despite repeated attempts to elicit information from the manufacturer. Several areas of concern were identified and removal of a section of wall with chemical investigations were subsequently recommended and performed.
- *Silversmiths, Taunton MA* – Mr. Czepiel served as the Fire Protection Engineer on the Insurance survey for this well-known silversmithing operation of longstanding, having been built and in operation since the 1830s. His duties included reevaluation of the existing fire protection systems, water supplies and life and safety issues. His certification from the Commonwealth of MA as a Professional Fire Protection Engineer qualified him to provide exemplary loss control services

Industry Tenure

- Engineering: 1969
- EMG: June, 2005

Related Experience

Industry Experience

- Government Facilities
- Office
- Industrial
- Housing/Multi-family
- Manufacturing
- Higher Education
- Hospitality
- Retail/Wholesale
- Aeronautics

Active Licenses/Registration

- Licensed Professional Engineer, State of MA, #29215
- Licensed Professional Fire Protection Engineer, Commonwealth of Massachusetts
- Licensed Property / Casualty Insurance Broker, Commonwealth of Massachusetts

Special Skills & Training

- Hydraulics and Water Supply Systems
- Sprinkler System Design
- Hazardous Materials, Combustible Liquids Management

Regional Location

- New England