

To: Dr. Paul Ash, Superintendent of Schools  
From: David Finney AIA, LEED  
Re: Lexington Elementary Schools Master Plan--Interim Report  
Date: 11/14/06

This is an interim report on Design Partnership's work for the Lexington Elementary Schools Master Plan. All of our evaluations and analyses are complete, except that we are awaiting some final cost information before we can make firm recommendations on the work to be done at each of the school sites. We expect to have that information and be able to make those recommendations by the end of November.

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#### A. Steps in the Planning Process

The sequence of tasks required to complete the Master Plan study in an orderly fashion is outlined below. *Tasks in italics represent work still in progress:*

1. Confirm the 10 year projected K-5 enrollment; adopt a district-wide K-5 design enrollment for master plan purposes.
2. Determine capacities of the existing schools, including modular CR's. Present this information to the Superintendent in a form that can be used to determine redistricting requirements.
3. Based on calculated capacities for new Harrington and new Fiske, determine design capacities for remaining schools as either new schools or renovated as new schools, looking at both a 5 school model and a 6 school model.
4. Develop prototype ed specs for new and renovated-as-new schools based on school requirements determined in step 3, using the new Harrington and Fiske ed specs as a starting point.
5. Develop new school and renovated-as-new school plans and site plans for each of the Bowman, Bridge, Estabrook and Hastings sites.
6. *Develop preliminary cost estimates for new and renovated-as-new plans at 4 school sites. These will be available by the end of November.*
7. *Set up a comparison matrix that evaluates the options (replacement school, renovate as new, or close school) at 4 school sites. Be prepared to offer a system-wide recommendation based on the comparison. These will be available by the end of November.*
8. Establish a possible time-line for master plan implementation. Describe alternative approaches to temporary housing for schools during construction. Show when old Harrington would be no longer needed for swing space.
9. Develop space program for central administration. Explore options for relocation, including reuse of old Harrington.

## Lexington Elementary Schools Master Plan

11/9/06

## I. Preliminary Implementation Plan

	2006	2007	2008	2009	2010
	FY 07	FY 08	FY 09	FY 10	
<b>Elementary School Master Plan</b>					
<i>presentations to SC &amp; PBC</i>	■				
<b>Elementary School Project 1</b>					
<i>Authorize Preliminary Design</i>		*			
<i>Feasibility Study / Preliminary Design</i>		■			
<i>Authorize Final Design</i>			*		
<i>Final Design</i>			■		
<i>Authorize Construction</i>				*	
<i>bid &amp; award</i>				■	
<i>School available for swing space</i>				■	
<i>Construction</i>				■	■

## II. Swing Space Calculation

## I. System-wide Capacity--one school closed:

	<i>all schools</i>	<i>one school closed</i>
Bowman	512	512
Bridge	466	466
Estabrook	466	466
Hastings	444	444
Fiske	490	490
Harrington	444	444
Close one school at 466		-466
<b>Total</b>	<b>2822</b>	<b>2356</b>

## II. Projected Enrollments (average)

	<i>FY 10</i>	<i>FY 11</i>
<b>3-year forecast 11/29/05:</b>	<b>2447</b>	<b>2394</b>

**B. Status of the work:**

1. **Enrollment projections:** DPC has prepared its own enrollment projections showing a likely design enrollment for FY 2016 of between 2128 and 2206. This projection was based on 2005-06 enrollment data and data for Lexington resident births provided by the state. This strongly confirms the projections done by Lexington Public schools in November 2005. Based on this, we have adopted for planning purposes a design enrollment of 2175 and have moved ahead with subsequent steps in the process. The recommended design enrollment is slightly above the average of the range, in order to provide a modest cushion and to ensure that the enrollment impact of Avalon Bay was incorporated.

Since that time, Lexington has generated an update to its enrollment projections, based on FY 2007 enrollments, that shows a somewhat lower range of projected enrollments for FY 2017. However, we are recommending, as a conservative approach, that the design enrollment remain at 2175.

2. **Existing School Capacities:** DPC has developed capacity calculations for each of the existing elementary schools, based on the premise that, as planned for redistricting, each school should have dedicated space for art, music and technology. The capacity calculations also recognize the need for resource and specialist space and for space to house district-wide special education programs at each school. These have been reviewed with the superintendent and presented to the redistricting committee.
3. **Master plan configuration options:** We have taken as a starting point the district-wide K-5 projected enrollment and the calculated capacities for the new Harrington and Fiske Schools (which differ slightly from the design figures due to the need to provide space for district-wide special education programs at each school). Based on these considerations, we have determined the enrollments that need to be required in the remaining schools, which could occur in the context of either a 6 school (as currently exists) or a 5 school district wide K-5 configuration. Assuming a desire for schools of equal size, if possible, this calculation indicates that the remaining enrollments could be housed in 3 schools of 413 pupils (19 CR's) or 4 schools of 310 pupils (14-15 CR's).

From this point forward in the planning process, we see our task as providing a recommended plan that meets the long-range elementary needs, beyond the capacities of the new Harrington and new Fiske, with either new schools or functionally-as-new renovated & expanded schools at existing elementary school sites. Because it is our expectation that the enrollment numbers will lead the school committee to agree that the 5 school option is best in the long term, we have focused our attention on planning 3 schools of 413 pupil capacities. We can present some considerations which suggest which school sites are most suitable for reu-use, but we are awaiting some final information before making a firm recommendation.

4. **Prototype Educational specifications:** We have developed a prototype ed spec for a 19-room 413-pupil school. This ed spec is the basis for developing both new school plans and plans for renovation/expansion to functionally as-new condition at each school site. Versions of this ed spec have been developed to reflect the slight differences in district-wide SpEd program space needs that occur at each school. These have been reviewed with the Superintendent and have been used to develop preliminary plans for each site.
5. **Develop preliminary plans:** We have developed site plans and building plans for new schools and for functionally-as-new renovations & additions at each of the

Bowman, Bridge, Estabrook and Hastings sites. *From these, we are developing cost estimates and a comparison matrix that shows the relative merits of building new, renovating to functionally as-new condition, or closing the school at each site.*

6. **Cost estimates:** *Cost estimates for plan options at each of 4 school sites are currently being developed.*
7. **Comparison Matrix:** *We are working on Criteria for a comparison matrix that will allow us to make recommendations regarding what should occur at each of the 4 school sites.*
8. **Time line for implementation:** We have developed a preliminary implementation timeline. Based on the projection for year by year enrollments, we have identified the likely time at which sufficient swing space will be available to renovate or replace a school without use of the old Harrington as swing space.
9. **Program and plan options for relocation of Central Administration:** We have developed a program for Central Administration's space needs. We are in process of developing options for relocation, including re-use of the old Harrington School.

**Attachments:**

- A1. Enrollment Projections—comparison chart
- A2. Enrollment Projections—births, enrollments by grade
- B. Capacity Calculations for Existing Elementary Schools
- C. Chart showing 6-school and 5-school Options
- D. Prototype Ed. Space Program for a 413-pupil Lexington K-5 school
- E. Preliminary Implementation Plan

## Town of Lexington - Prototype Elementary School Ed Program -

Capacity: 3 K = 56  
 6 @ gr 1 & 2 = 127  
 10 @ gr 3,4,5 = 230  
 SpEd S.C.=  
 total 413

Room Name		Exist. Program No.    Size (sf)		SBA standards Min (sf)    Max (sf)		New Program No.    Ea. (sf)    Total (sf)			10 @ gr 3,4,5 = 230 SpEd S.C.= total    413
Table A: Basic Educational Space						413students			
General Classrooms									
2.	* Kindergarten w/ toilet			1,200	1,300	3	1,250	3,750	
3.	* 1st Grade			900	1,000	3	980	2,940	
	* 2nd Grade			900	1,000	3	980	2,940	
	* 3rd Grade			900	1,000	3	980	2,940	
	* 4th Grade			900	1,000	3	980	2,940	
	* 5th Grade			900	1,000	3	980	2,940	
	swing cr					1	980	980	
subtotal		0	0	5,700	6,300	19		19,430	
Specialized Teaching Stations									
4.	* Art			1,000	1,200	1	1,500	1,500	total w/ storage & kiln
	Art Storage			--	--				
5.	* Music			1,000	1,200	1	1,400	1,400	total w/ storage
	Practice Room 1			75	130	1	130	130	
	Practice Room 2			75	130	1	130	130	
6.	* Computer Labs			1,000	1,200	1	1,400	1,400	total w/ storage
9.	Library			1,800	3,000	1	3,000	3,000	
	Library Office			--	--	1	160	160	
	Library Work			--	--	1	120	120	
	A/V Storage			--	--	1	120	120	
10.	Gymnasium **			3,000	6,000 **	1	4,400	4,400	decide if stage is with caf or gym.
	stage for "gymatorium"								
subtotal			0					12,360	
11. Special Needs									
	* Learning Center (Resource)			(as needed)		1	750	750	
	* Tutorial-4 @ 200			(as needed)		4	800	3,200	distributed (in pairs ok)
	Occup. Therapy			(as needed)		1	550	550	near gym if poss.
				(as needed)					
subtotal			0					4,500	
12. Reading / S L									
	Reading Small Group Room			(as needed)		1	350	350	} as a suite
	Reading Office/tutorial			(as needed)		3	220	660	
	Speech/Office			(as needed)		2	250	500	
subtotal			0					1,510	
13. District-wide SpEd									
	Self-Cont. classrooms 3 @ 980					3	980	2,940	} as a suite
Total Table A			0					40,740	

\* storage included within room size (note: the SBA recommended classroom sizes exclude storage)

\*\* SBA (603 CMR 38.05 Table 1) specifies in a 12+ classrm school, 3000sf for ea. of first 2 teaching stations & 2000 to 3000sf ea. additional



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			10 @ gr 3,4,5 = 230 SpEd S.C.= total 413	
Table B: Misc. Educational Space			428stu.s	
1. Cafeteria or			1    2,140    2,140 or	
2. Cafetorium				
Platform		--            --	1            800            800	
Seating Area +			1    3,210    3,210	sized for 2 seatings for max. audience space
subtotal	0		4,010	
3. Guidance				
Counseling Waiting Area		(as needed)	1            100            100	
Counseling office		(as needed)	1            150            150	
psych office		(as needed)	1            150            150	
Conference/Testing		(as needed)	1            150            150	
Assesment Storage		(as needed)	1            100            100	
subtotal	0		650	
4. Health (Nurse)		300            750	1            700            700	(200sf office/waiting,200sf exam + rest
5. Kitchen ++		1,360            1,360    ++	1            1,360            1,360	full service
6. Administration				
Principal			1            200            200	
Asst. Princ.			1            150            150	
Main Office			1            470            470	
Work Rm/Kitchenette/Mailboxes			1            180            180	
Office Supplies			1            50            50	
Conference 2@ 300			2            300            600	
subtotal	0	800	1,650	
8. Small Group and Seminar				
Teachers Work		500	1            600            600	
Teachers Dining		500	1            500            500	
Tech aide / work			1            250            250	
Extended day office			1            200            200	
subtotal	0		1,550	
12. Specific Storage/Offices				
Caf Storage		--            --	1            200            200	
Gym Office		--            --	1            120            120	
Gym Storage		--            --	1            300            300	
subtotal	0		620	
Community Use				
subtotal	0		0	
Total Table B	0		10,540	** Total is with Cafetorium, not Cafeteria - Adjust accordingly
Total Table A + B	0		51,280	
Other Space (partial listing)				
Custodial	[6]		1            150            150	
Storage				
General Storage			1            900            900	
subtotal	0		900	
Mechanical				
MDF Rooms			1            110            110	
IDF Rooms			1            110            110	
Boiler Room			1            1,500            1,500	
subtotal	0		1,720	
Total Other Space	0		2,770	

+ SBA specifies 15sf per pupil for 1/2 or 1/3 of the enrollment at each seating

++ SBA specifies for full service kitchen, 1300sf for the first 300 meals + 1sf for each additional meal serviced. For service kitchen only allow 800sf

+++ SBA specifies 7sf per pupil for seating; stage sf additional