



Kevin J. Murphy  
*City Manager*  
Michael McGovern  
*Assistant City Manager*

February 2, 2017

Mayor Edward J. Kennedy, Jr.  
and  
Members of the City Council

Dear Mayor Kennedy and Members of the City Council:

Attached please find documents related to the Lowell High School project. Included are 11 conceptual options with total project estimates and district share estimates. Representatives from Skanska and Perkins/Eastman will review the materials at the February 7, 2017 City Council meeting. Also included is a very preliminary financial impact assessment.

Please feel free to contact me if you have any further questions regarding this matter.

Sincerely,

Kevin J. Murphy  
City Manager

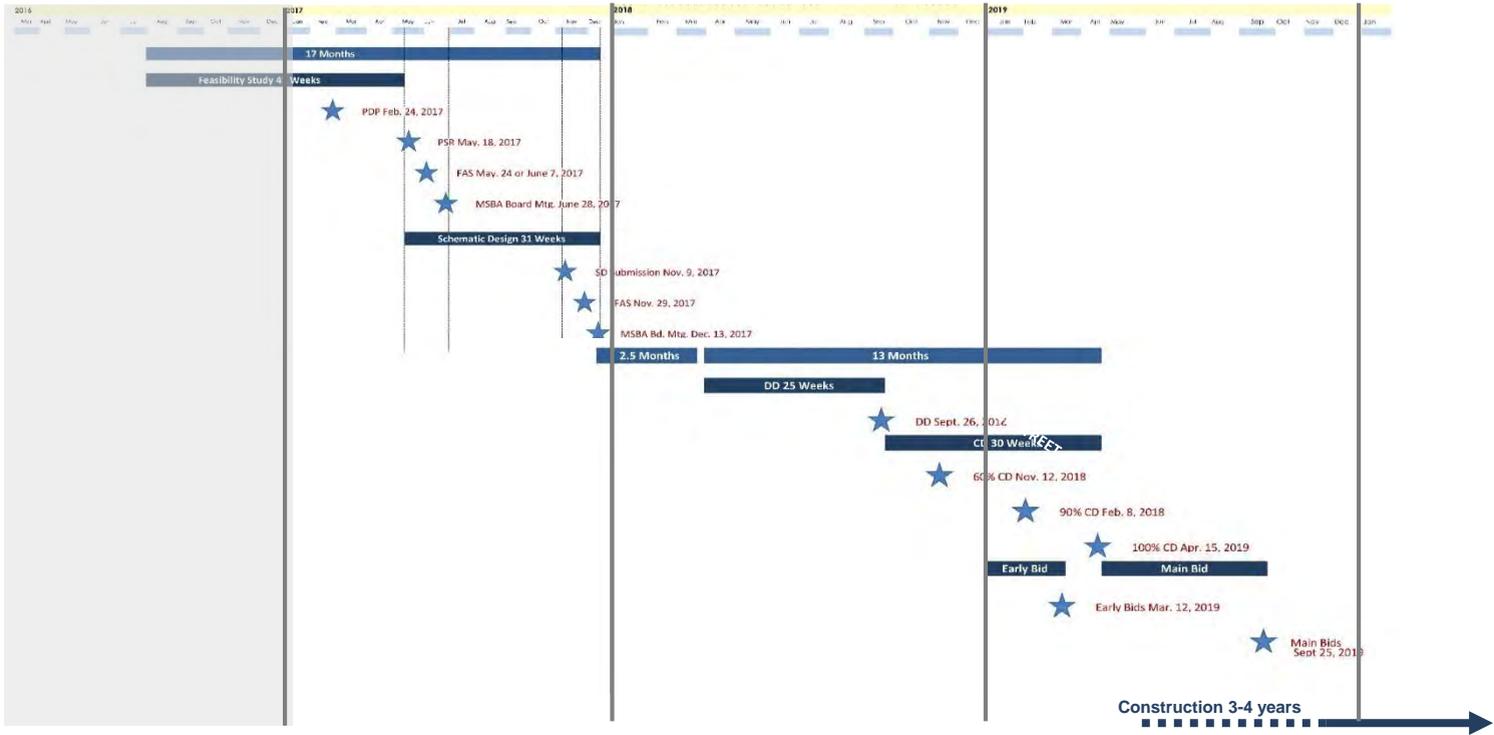


LOWELL HIGH SCHOOL

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LOWELL CITY COUNCIL &  
SCHOOL BUILDING COMMITTEE  
PRESENTATION

FEBRUARY 7, 2017



Project Timeline and Decisions (3yr + Constr)

The current phase of work within the MSBA program occurs in 3 major submission over a 16 month period

Feasibility Study (Two Major MSBA Submissions)		Schematic Design	
<b>Preliminary Design Program</b>			
<ul style="list-style-type: none"> <li>• Existing Cond's/Site Assessments</li> <li>• Educational Visioning &amp; Goals</li> <li>• <b>Educational Program</b> (by District)</li> <li>• Educ Specifications/Space Needs</li> <li>• Develop &amp; Assess Prelim. Options</li> <li>• Select Preferred Site/Plan Options</li> </ul>	<b>Preferred Schem. Report</b>		
	<ul style="list-style-type: none"> <li>• Refinement of Plan Options</li> <li>• Safety &amp; Sustainability Goals</li> <li>• Massing/Design Studies</li> <li>• Final Assessment &amp; Select (1)</li> </ul>	<b>Schem. Design Report</b>	
		<ul style="list-style-type: none"> <li>• Detailed Room Layouts</li> <li>• Finalize Project Scope</li> </ul>	
<b>Feb. 2017</b>		<b>May 2017</b>	
		<b>Dec. 2017</b>	

Project Timeline and Decisions

**BUILDABLE ACREAGE = 6.4**  
**BUILDING (GSF) = 641,600**  
 RENOVATION AREA (GSF) = 623,700  
 ADDITION/ NEW AREA (GSF) = 17,900  
 EXISTING 2, 3 & 5 STORY + 2 STORY  
 ADDTN

PARKING (GARAGE) = 1200 CAR  
 CAPACITY

**PROS/CONS**

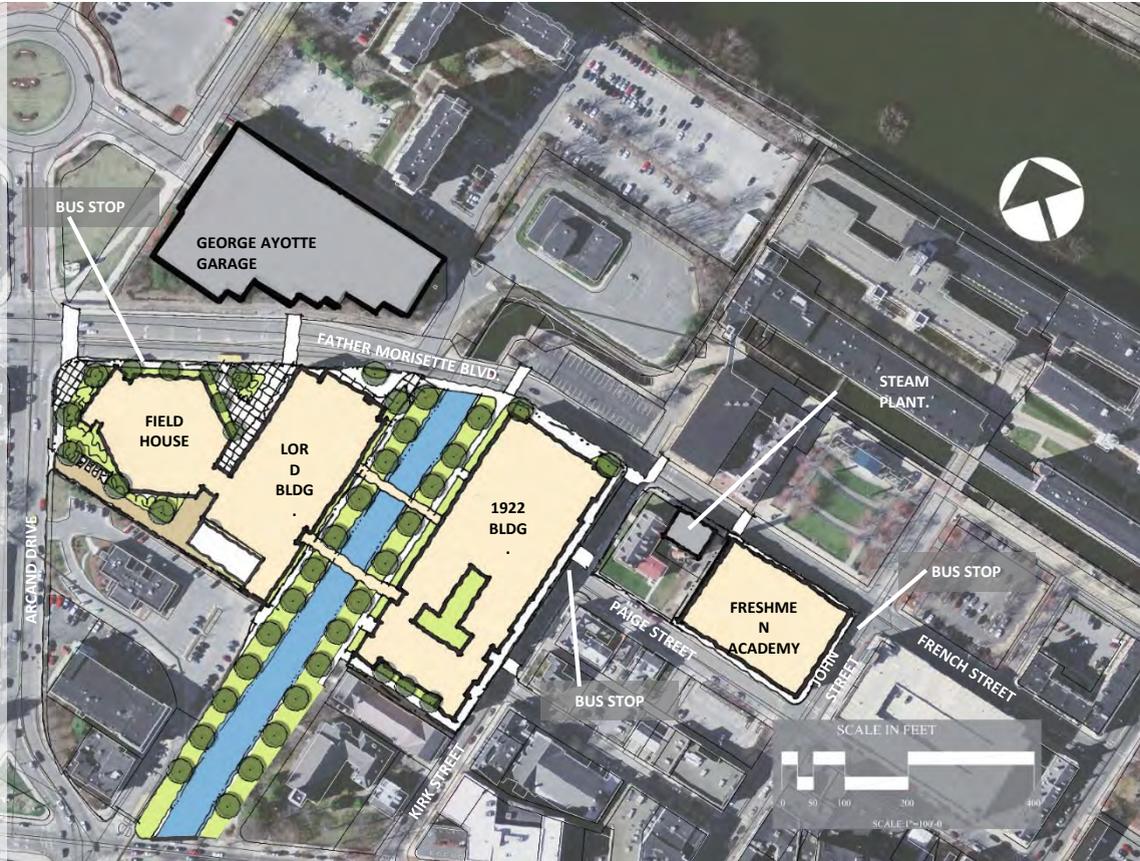
- + PROXIMITY TO TRANSPORTATION
- + PROXIMITY TO CITY/SOCIAL SERVICES
- + ADJACENT PKG GARAGE (COVERED)
- + MEETS ALL SPACE NEEDS (COUNT/SIZE)
- +/- MEETS SOME EDUC. OBJECTIVES
- COMM./ACTIVITY AREAS SPREAD/SPLIT
- FRESHMAN ACADEMY IS REMOTE (INEFFICIENT SPACE USE/SAFETY ISSUE)
- SOLAR ORIENTATION IS PROBLEMATIC
- WINDOWLESS CLASSROOMS REMAIN
- LIMITED ACCESS TO GREEN SPACE
- HIGHER OPERATING COSTS (SIZE+ENV.)

**CONSTRUCTION**

- 5 YEAR PHASED PROJECT
- EXTENSIVE MODULAR CLASSROOMS
- TEMPORARY GYM FACILITIES REQUIRED

**RELATIVE COSTS**

TOTAL PROJECT COST = \$331,360,298  
 ESTIMATED CITY'S SHARE = \$116,472,533



**BUILDABLE ACREAGE = 6.0**  
**BUILDING (GSF) = 617,400**  
 RENOVATION AREA (GSF) = 623,700  
 ADDITION/ NEW AREA (GSF) = 17,900  
 NEW 2 & 3 STORY ADDITIONS, INCLUDING  
 2 STORY BRIDGES

PARKING (GARAGE) = 1200 CAR  
 CAPACITY

**PROS/CONS**

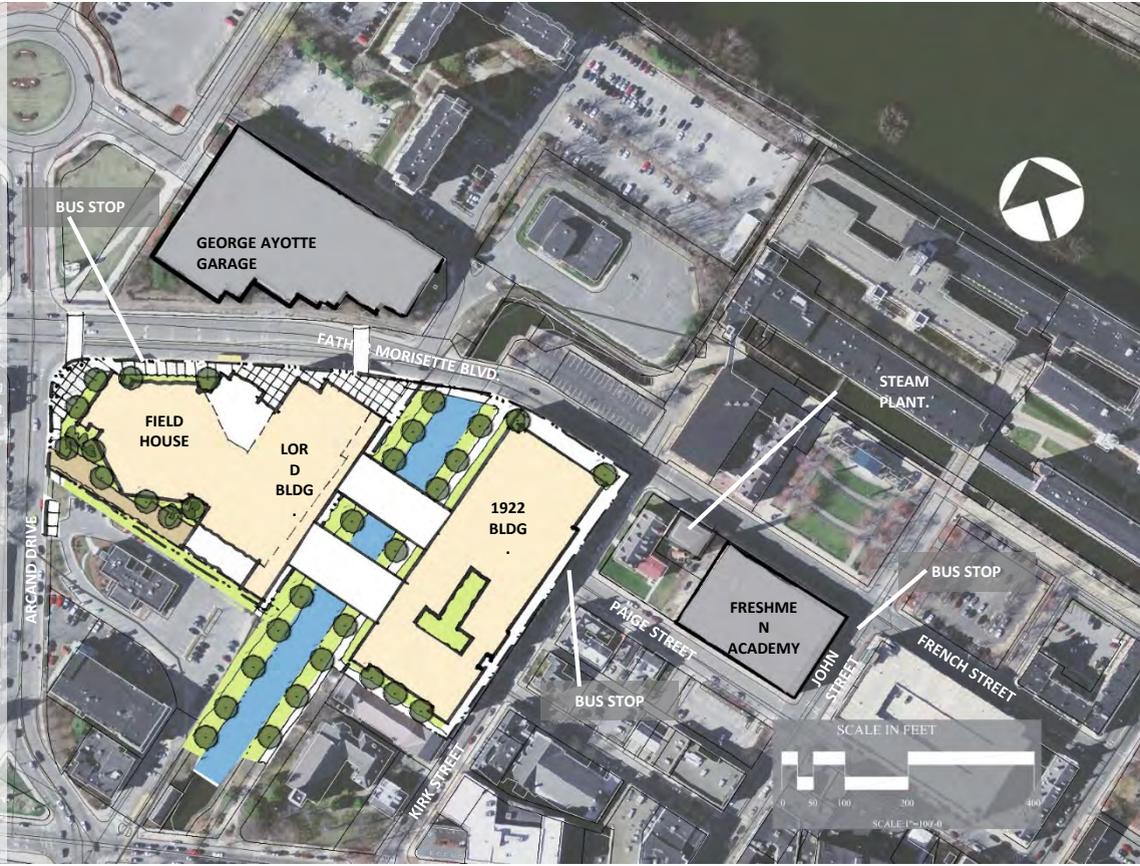
- SAME AS FULL-RENO, EXCEPT;**
- + FRESHMAN RELOCATED ON CAMPUS
  - + FORMER BLDG AVAILABLE FOR REUSE
  - + NEW ENTRY/FACE TO THE SCHOOL
  - + NEW 2-TIER BRIDGES (CIRC./SAFETY)

**CONSTRUCTION**

- 4½ YEAR PHASED PROJECT
- + FEW MODULAR CLASSROOMS REQ'D
- TEMPORARY GYM FACILITIES  
REQUIRED

**RELATIVE COSTS**

TOTAL PROJECT COST = \$340,980,538  
 ESTIMATED CITY'S SHARE = \$132,448,689



**BUILDABLE ACREAGE = 6.0**

**BUILDING (GSF) = 624,000**

RENOVATION AREA (GSF) = 454,100

ADDITION/ NEW AREA (GSF) = 17,000

NEW 2 STORY FIELD HS, 5 STORY FA WING + 2 STORY BRIDGES

PARKING (GARAGE) = 1200 CAR CAPACITY

**PROS/CONS**

**SAME AS OPTION 1A, EXCEPT;**

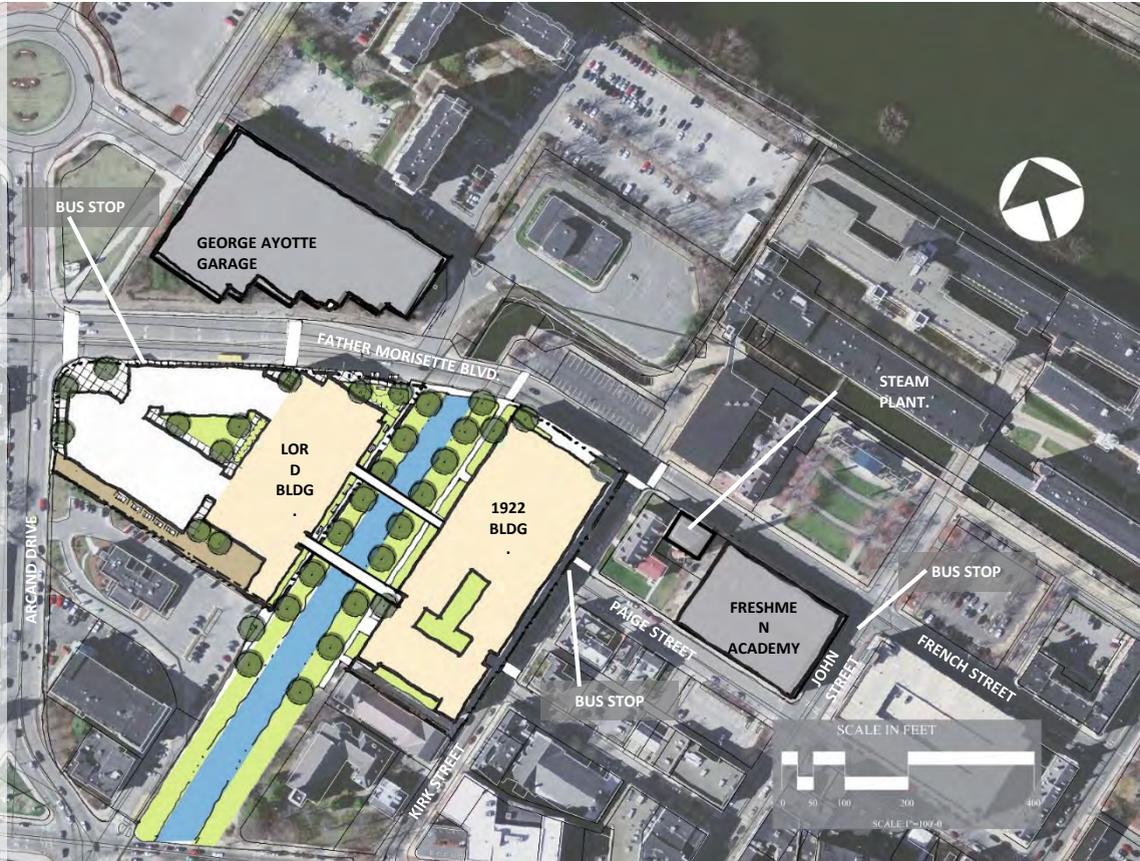
- + NEW FRESHMAN WING (IDEAL ORG/SUN)
- + NEW FIELD HS (MORE EFFIC./FLEXIBLE)
- + MODEST GREEN SPACE CREATED

**CONSTRUCTION**

- 4 YEAR PHASED PROJECT
- + FEW MODULAR CLASSROOMS REQ'D
- TEMPORARY GYM FACILITIES REQUIRED

**RELATIVE COSTS**

TOTAL PROJECT COST = \$344,087,262  
 ESTIMATED CITY'S SHARE = \$135,614,525



**BUILDABLE ACREAGE = 7.4**  
**BUILDING (GSF) = 638,700**  
 RENOVATION AREA (GSF) = 447,500  
 ADDITION/ NEW AREA (GSF) = 191,200  
 NEW 2 STORY FIELD HS, 5 STORY FA WING + 2 STORY BRIDGES

PARKING (GARAGE) = 1200 CAR CAPACITY

**PROS/CONS**  
**SAME AS OPTION 2, EXCEPT;**

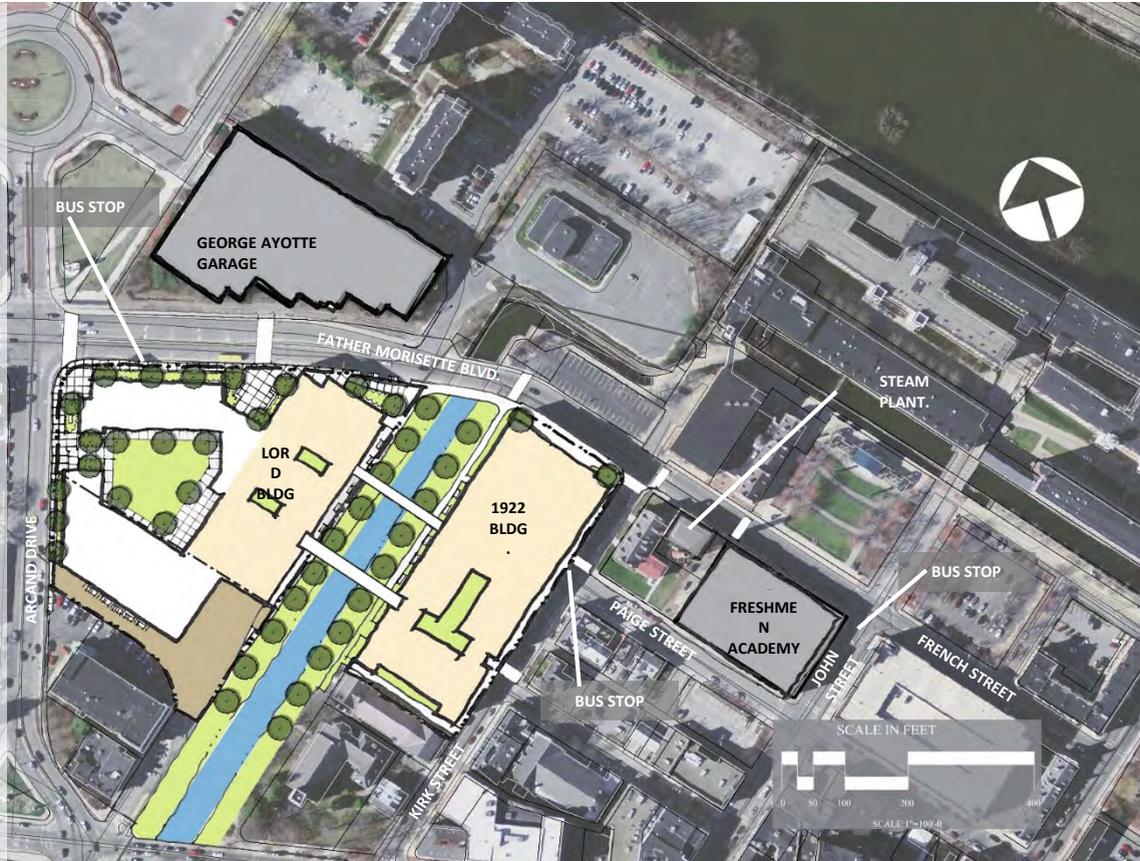
- + NEW KITCH./LOADING (BUILT PHASE-1)
- + LIGHT WELLS = NO WINDOWLESS CR'S
- + LARGE GREEN SPACE CREATED

**CONSTRUCTION**

- 4½ YEAR PHASED PROJECT
- + FEW MODULAR CLASSROOMS REQ'D
- + NO TEMPORARY GYM FACILITIES REQ'D

**RELATIVE COSTS**

TOTAL PROJECT COST = \$334,335,971  
 ESTIMATED CITY'S SHARE = \$126,417,978



**BUILDABLE ACREAGE = 6.0**  
**BUILDING (GSF) = 619,000**  
 RENOVATION AREA (GSF) = 312,800  
 ADDITION/ NEW AREA (GSF) = 306,200  
 NEW 2 STORY FIELD HS, 5 STORY OTHERS  
 + 2 STORY BRIDGES

PARKING (GARAGE) = 1200 CAR  
 CAPACITY

**PROS/CONS**

**SAME AS OPTION 2, EXCEPT;**

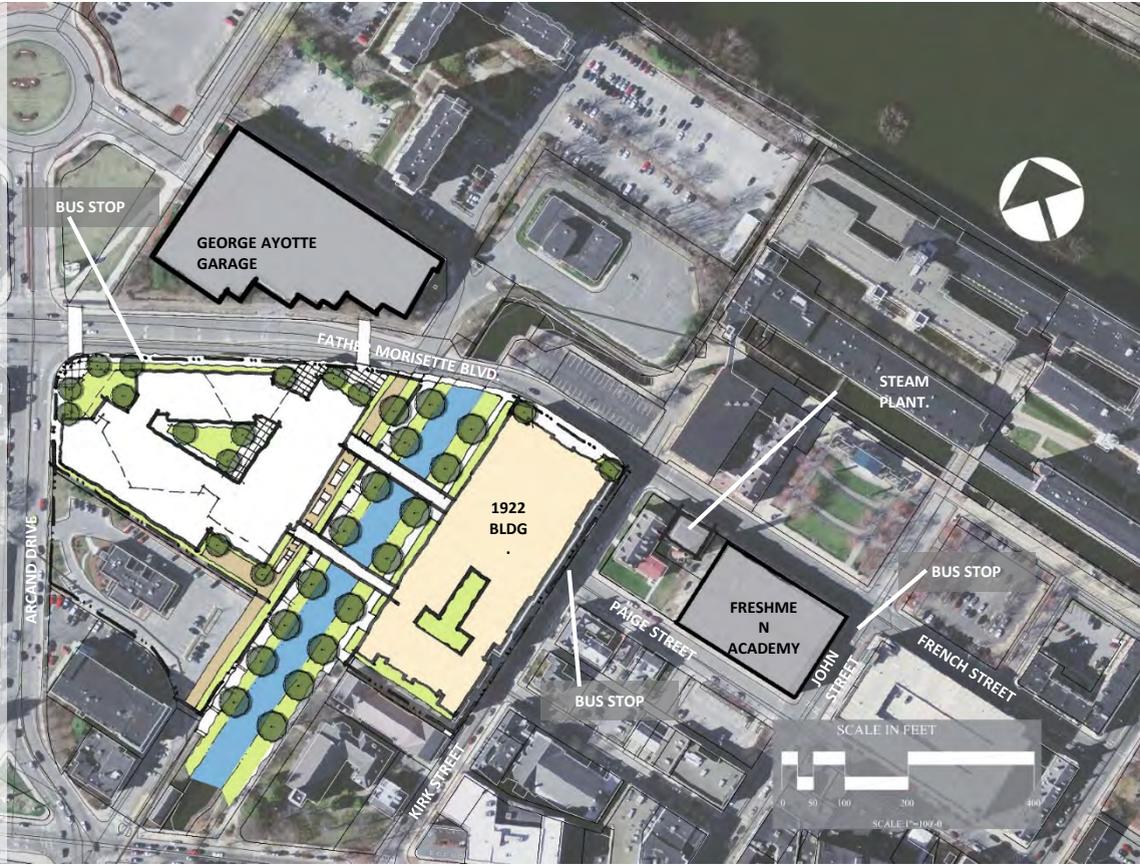
- + NEW LORD BLDG ALLOWS THRU-ROAD
- + NO WINDOWLESS CLASSROOMS
- +/- CAFETERIA SPLIT ON 2 FLOORS, CREATING SEPARATE FRESHMAN AREA
- MANY PUBLIC USE PROGRAMS FORCED ONTO UPPER FLOORS

**CONSTRUCTION**

- 3 YEAR PHASED PROJECT
- EXTENSIVE MODULAR CR'S REQ'D
- TEMPORARY GYM FACILITIES REQUIRED
- TEMPORARY CAF./KITCHEN REQUIRED

**RELATIVE COSTS**

TOTAL PROJECT COST = \$376,371,511  
 ESTIMATED CITY'S SHARE = \$165,786,170



**BUILDABLE ACREAGE = 7.4**  
**BUILDING (GSF) = 620,900**  
 RENOVATION AREA (GSF) = 312,800  
 ADDITION/ NEW AREA (GSF) = 308,100  
 NEW 2 STORY FIELD HS, 5 STORY OTHERS  
 + 2 STORY BRIDGES

PARKING (GARAGE) = 1200 CAR  
 CAPACITY

**PROS/CONS**

**SAME AS OPTION 3, EXCEPT;**

- + NEW LORD BLDG ALLOWS THRU-ROAD
- + NO WINDOWLESS CLASSROOMS
- +/- CAFETERIA SPLIT ON 2 FLOORS,  
CREATING SEPARATE FRESHMAN AREA
- MANY PUBLIC USE PROGRAMS FORCED  
ONTO UPPER FLOORS

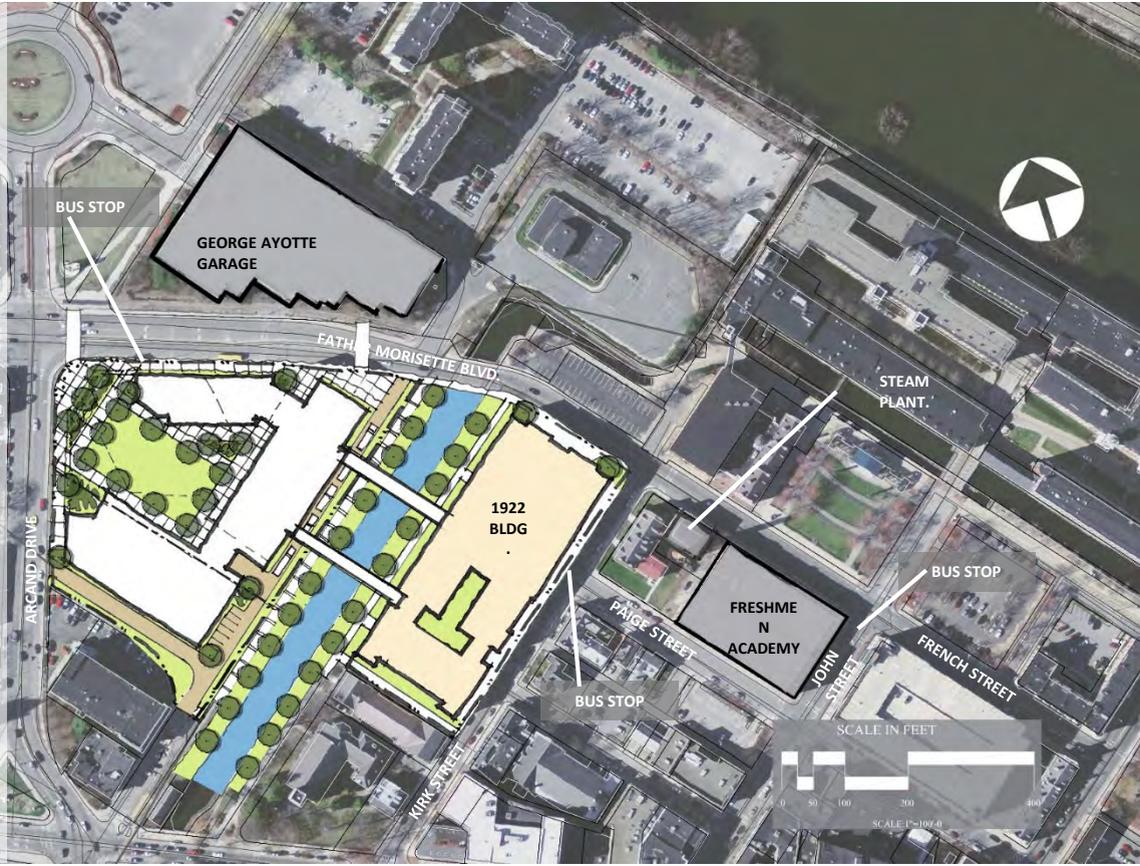
**CONSTRUCTION**

**3½ YEAR PHASED PROJECT**

- EXTENSIVE MODULAR CR'S REQ'D
- + NO TEMPORARY GYM FACILITIES  
REQ'D
- TEMPORARY CAF./KITCHEN REQUIRED

**RELATIVE COSTS**

TOTAL PROJECT COST = \$386,376,693  
 ESTIMATED CITY'S SHARE = \$173,976,178



**BUILDABLE ACREAGE = 3.3**  
**BUILDING (GSF) = 594,000**  
 ALL NEW AREA (GSF) = 594,000  
 NEW 6 STORY BLDG + 2 STORY BRIDGES

**PARKING (GARAGE) = 1200 CAR CAPACITY**

**PROS/CONS**

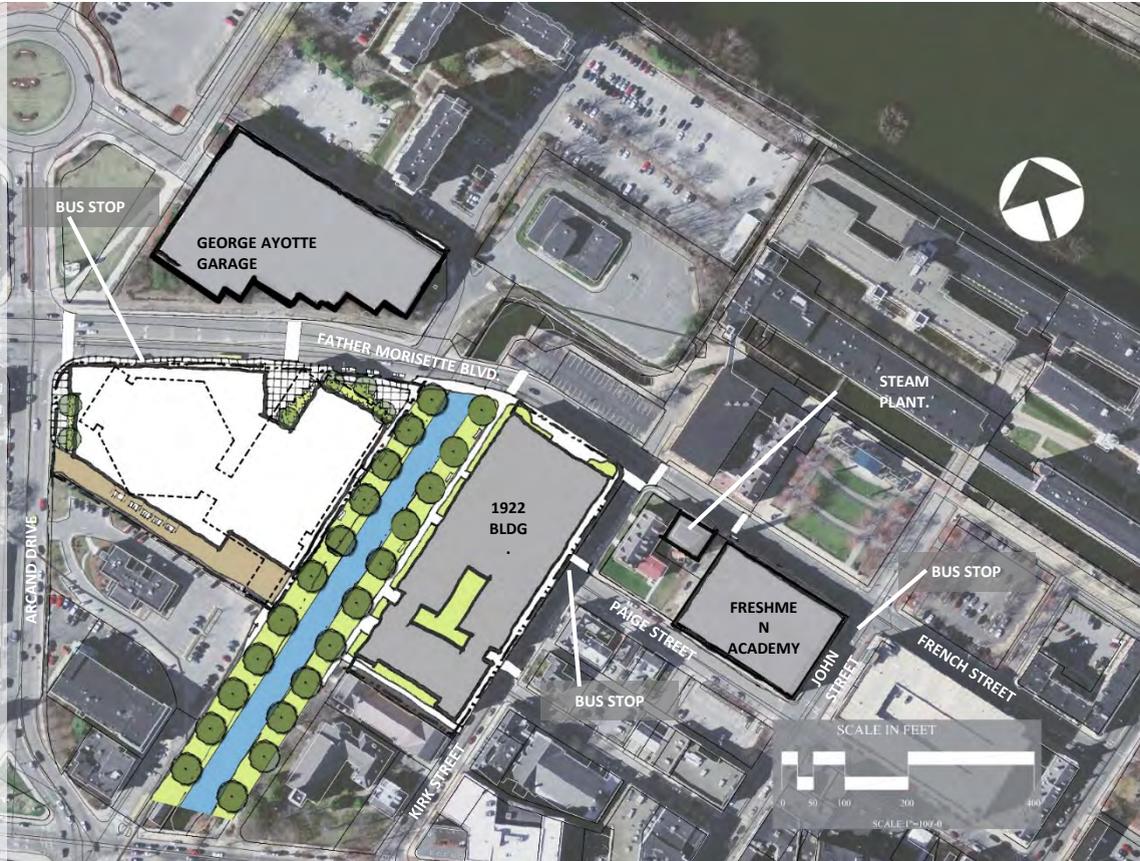
- + PROXIMITY TO TRANSPORTATION
- + PROXIMITY TO CITY/SOCIAL SERVICES
- + ADJACENT PKG GARAGE (COVERED)
- + BENEFITS OF ALL NEW CONSTRUCTION:
  - ✓ ZONED FOR COMMUNITY/ACTIVITY
  - ✓ MEETS ALL SPACE NEEDS
  - ✓ MEETS MOST ALL EDUC OBJECTIVES
  - ✓ IDEAL FRESHMAN ORG./CLUSTERS
  - ✓ FIELD HS (MORE EFFIC./FLEXIBLE)
  - ✓ MORE EFFICIENT USE/OPERATIONS
- + FORMER FA & 1922 BLDG'S AVAILABLE
- TRIGGERS HIGH RISE CONSTRUCTION
- PUBLIC PROGRAMS ON UPPER FLOORS
- NOT IDEAL NEW ORIENTATION
- WINDOWLESS SCIENCE LABS IN NEW
- LIMITED ACCESS TO GREEN SPACE

**CONSTRUCTION**

- 3 YEAR PHASED PROJECT**
- EXTENSIVE MODULAR CR'S REQ'D
  - NO TEMPORARY GYM FACILITIES REQ'D
  - TEMPORARY CAF./KITCHEN REQUIRED

**RELATIVE COSTS**

TOTAL PROJECT COST = \$350,611,505  
 ESTIMATED CITY'S SHARE = \$156,843,060



**Lowell High School** NEW SCHOOL - **EXISTING**

**Perkins Eastman SKANSKA**

**BUILDABLE ACREAGE = 4.7**  
**BUILDING (GSF) = 576,500**  
ALL NEW AREA (GSF) = 576,500  
NEW 5 STORY BLDG + 2 STORY BRIDGES

PARKING (GARAGE) = 1200 CAR CAPACITY

**PROS/CONS**

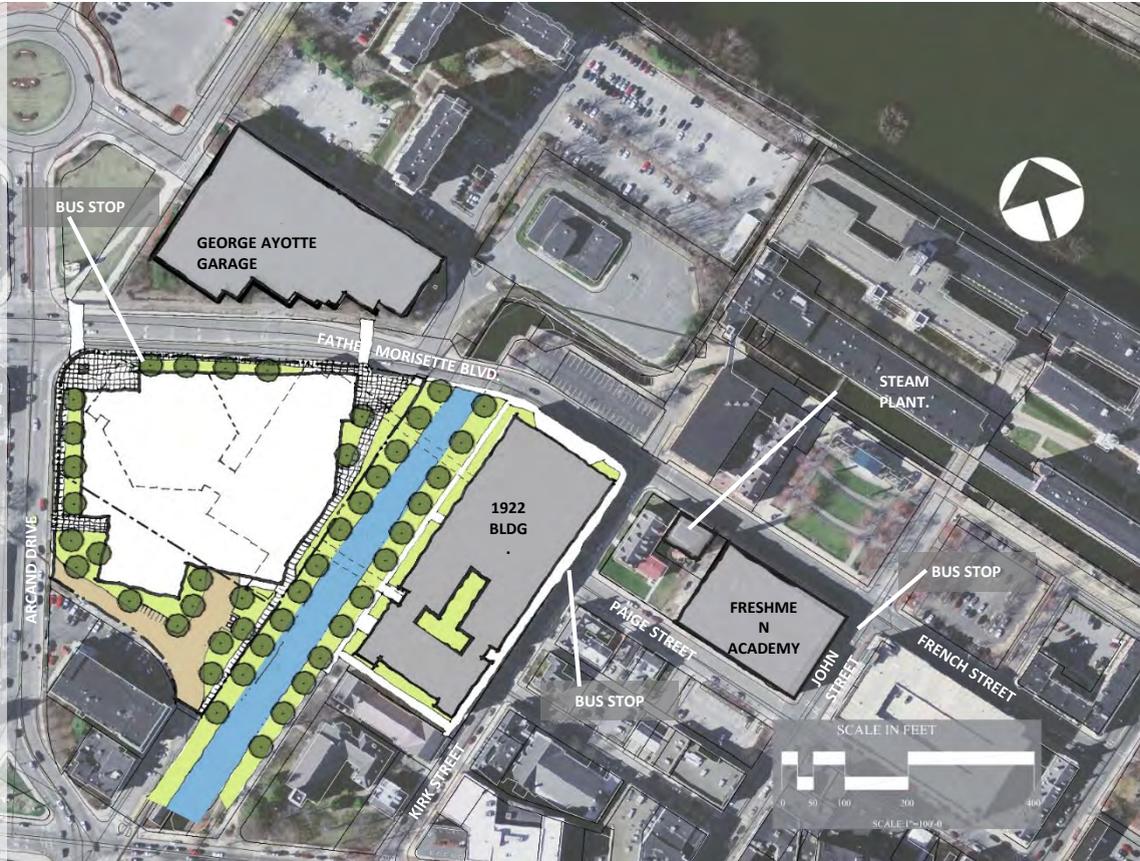
- SAME AS NEW ON EXIST, EXCEPT;**
- + DOES NOT TRIGGER HIGH RISE CONSTR.
  - + GOOD COMMUNITY/ACTIVITY ZONE
  - + GOOD SOLAR ORIENTATION AT ALL CRS
  - + NO WINDOWLESS CLASSROOMS
  - NO THRU-ROAD

**CONSTRUCTION**

- 3½ YEAR PHASED PROJECT
- EXTENSIVE MODULAR CR'S REQ'D
  - TEMPORARY GYM FACILITIES REQ'D
  - TEMPORARY CAF./KITCHEN REQUIRED

**RELATIVE COSTS**

TOTAL PROJECT COST = \$355,436,809  
ESTIMATED CITY'S SHARE = \$165,955,019



**BUILDABLE ACREAGE = 14.7**

TOTAL SITE ACREAGE = 56.0

**BUILDING (GSF) = 571,500**

ALL NEW AREA (GSF) = 571,500

4 STORY BLDG

PARKING (ON-SITE) = 430 CAR CAPACITY

**PROS/CONS**

**SAME AS NEW ON EXIST, EXCEPT;**

- + MORE IDEAL 4 STORY CONSTRUCTION
- + AMPLE ACCESS TO GREEN SPACE
- + GOOD SOLAR ORIENTATION FOR ALL
- CO-LOCATED W/ MIDDLE+ELEM. SCHOOL
- LIMITED WALKABILITY /PUBLIC TRANSIT
- NOT CLOSE TO CITY SERVICES
- IN CLOSE PROXIMITY TO RESIDENTIAL AREAS (TRAFFIC + MASSING CONCERNS)

**CONSTRUCTION**

3 YEAR CONSTRUCTION

- + NO PHASING OR MODULARS REQ'D
- + NOT EDUCATIONALLY DISRUPTIVE
- FIELDS TO BE REPLICATED:  
(1 SOCCER + 2 LITTLE LEAGUE FIELDS)

**RELATIVE COSTS**

TOTAL PROJECT COST = \$325,679,444

ESTIMATED CITY'S SHARE = \$142,245,805



**BUILDABLE ACREAGE = 20.0**

(16.4 FOR NEW SCHOOL + 3.6 NEW FIELDS)

TOTAL ACREAGE = 34.0 (4 IN TEWKSBURY)

**BUILDING (GSF) = 571,500**

ALL NEW AREA (GSF) = 571,500

4 STORY BLDG

PARKING (ON-SITE) = 608 CAR CAPACITY

**PROS/CONS**

**SAME AS NEW AT WANG, EXCEPT;**

- + ADJACENT TO FOOTBALL STADIUM
- + AMPLE ACCESS TO GREEN SPACE
- + NOT CO-LOCATED W/ OTHER SCHOOLS
- +/- MORE ACCOMMODATING ACCESS
- SIGNIFICANT FIELD REPLICATION REQ'D:  
(MARTIN SOFTBALL + PRACTICE INFIELD, FIELD HOCKEY/LAX PRACTICE FIELD, DESMOND FR & MACHADO JV FOOTBALL PRACTICE FIELDS)

**CONSTRUCTION**

3 YEAR CONSTRUCTION

- + NO PHASING OR MODULARS REQ'D
- + NOT EDUCATIONALLY DISRUPTIVE

**RELATIVE COSTS**

TOTAL PROJECT COST = \$332,458,871

ESTIMATED CITY'S SHARE = \$148,341,142





**FULL RENOVATION**

**BUILDABLE ACREAGE = 6.4**  
**BUILDING (GSF) = 641,600**  
**RENOVATION AREA (GSF) = 623,700**  
**ADDITION/ NEW AREA (GSF) = 17,900**  
**EXISTING 2, 3 & 5 STORY + 2 STORY ADDTN**

**PARKING (GARAGE) = 1200 CAR CAPACITY**

**PROS/CONS**  
 + PROXIMITY TO TRANSPORTATION  
 + PROXIMITY TO CITY/SOCIAL SERVICES  
 + ADJACENT PKG GARAGE (COVERED)  
 + MEETS ALL SPACE NEEDS (COUNT/SIZE)  
 +/- MEETS SOME EDUC. OBJECTIVES  
 - COMM./ACTIVITY AREAS SPREAD/SPLIT  
 - FRESHMAN ACADEMY IS REMOTE (INEFFICIENT SPACE USE/SAFETY ISSUE)  
 - SOLAR ORIENTATION IS PROBLEMATIC  
 - WINDOWLESS CLASSROOMS REMAIN  
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**CONSTRUCTION**  
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 - EXTENSIVE MODULAR CLASSROOMS  
 - TEMPORARY GYM FACILITIES REQUIRED

**RELATIVE COSTS**  
**TOTAL PROJECT COST = \$331,360,298**  
**ESTIMATED CITY'S SHARE = \$116,472,533**

**ADD/ RENO OPTION 1A**

**BUILDABLE ACREAGE = 6.0**  
**BUILDING (GSF) = 617,400**  
**RENOVATION AREA (GSF) = 623,700**  
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**NEW 2 & 3 STORY ADDITIONS, INCLUDING 2 STORY BRIDGES**

**PARKING (GARAGE) = 1200 CAR CAPACITY**

**PROS/CONS**  
**SAME AS FULL-RENO, EXCEPT;**  
 + FRESHMAN RELOCATED ON CAMPUS  
 + FORMER BLDG AVAILABLE FOR REUSE  
 + NEW ENTRY/FACE TO THE SCHOOL  
 + NEW 2-TIER BRIDGES (CIRC./SAFETY)

**CONSTRUCTION**  
 4½ YEAR PHASED PROJECT  
 + FEW MODULAR CLASSROOMS REQ'D  
 - TEMPORARY GYM FACILITIES REQUIRED

**RELATIVE COSTS**  
**TOTAL PROJECT COST = \$340,980,538**  
**ESTIMATED CITY'S SHARE = \$132,448,689**

**ADD/ RENO OPTION 2**

**BUILDABLE ACREAGE = 6.0**  
**BUILDING (GSF) = 624,000**  
**RENOVATION AREA (GSF) = 454,100**  
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**NEW 2 STORY FIELD HS, 5 STORY FA WING + 2 STORY BRIDGES**

**PARKING (GARAGE) = 1200 CAR CAPACITY**

**PROS/CONS**  
**SAME AS OPTION 1A, EXCEPT;**  
 + NEW FRESHMAN WING (IDEAL ORG/SUN)  
 + NEW FIELD HS (MORE EFFIC./FLEXIBLE)  
 + MODEST GREEN SPACE CREATED

**CONSTRUCTION**  
 4 YEAR PHASED PROJECT  
 + FEW MODULAR CLASSROOMS REQ'D  
 - TEMPORARY GYM FACILITIES REQUIRED

**RELATIVE COSTS**  
**TOTAL PROJECT COST = \$344,087,262**  
**ESTIMATED CITY'S SHARE = \$135,614,525**

**ADD/ RENO OPTION 3**

**BUILDABLE ACREAGE = 7.4**  
**BUILDING (GSF) = 638,700**  
**RENOVATION AREA (GSF) = 447,500**  
**ADDITION/ NEW AREA (GSF) = 191,200**  
**NEW 2 STORY FIELD HS, 5 STORY FA WING + 2 STORY BRIDGES**

**PARKING (GARAGE) = 1200 CAR CAPACITY**

**PROS/CONS**  
**SAME AS OPTION 2, EXCEPT;**  
 + NEW KITCH./LOADING (BUILT PHASE-1)  
 + LIGHT WELLS = NO WINDOWLESS CR'S  
 + LARGE GREEN SPACE CREATED

**CONSTRUCTION**  
 4½ YEAR PHASED PROJECT  
 + FEW MODULAR CLASSROOMS REQ'D  
 + NO TEMPORARY GYM FACILITIES REQ'D

**RELATIVE COSTS**  
**TOTAL PROJECT COST = \$334,335,971**  
**ESTIMATED CITY'S SHARE = \$126,417,978**

**ADD/ RENO OPTION 4**

**BUILDABLE ACREAGE = 6.0**  
**BUILDING (GSF) = 619,000**  
**RENOVATION AREA (GSF) = 312,800**  
**ADDITION/ NEW AREA (GSF) = 306,200**  
**NEW 2 STORY FIELD HS, 5 STORY OTHERS + 2 STORY BRIDGES**

**PARKING (GARAGE) = 1200 CAR CAPACITY**

**PROS/CONS**  
**SAME AS OPTION 2, EXCEPT;**  
 + NEW LORD BLDG ALLOWS THRU-ROAD  
 + NO WINDOWLESS CLASSROOMS  
 +/- CAFETERIA SPLIT ON 2 FLOORS, CREATING SEPARATE FRESHMAN AREA  
 - MANY PUBLIC USE PROGRAMS FORCED ONTO UPPER FLOORS

**CONSTRUCTION**  
 3 YEAR PHASED PROJECT  
 - EXTENSIVE MODULAR CR'S REQ'D  
 - TEMPORARY GYM FACILITIES REQUIRED  
 - TEMPORARY CAF./KITCHEN REQUIRED

**RELATIVE COSTS**  
**TOTAL PROJECT COST = \$376,371,511**  
**ESTIMATED CITY'S SHARE = \$165,786,170**



**ADD/ RENO OPTION 5**

**BUILDABLE ACREAGE = 7.4**  
**BUILDING (GSF) = 620,900**  
**RENOVATION AREA (GSF) = 312,800**  
**ADDITION/ NEW AREA (GSF) = 308,100**  
**NEW 2 STORY FIELD HS, 5 STORY OTHERS + 2 STORY BRIDGES**  
**PARKING (GARAGE) = 1200 CAR CAPACITY**

**PROS/CONS**  
**SAME AS OPTION 3, EXCEPT;**  
 + NEW LORD BLDG ALLOWS THRU-ROAD  
 + NO WINDOWLESS CLASSROOMS  
 +/- CAFETERIA SPLIT ON 2 FLOORS, CREATING SEPARATE FRESHMAN AREA  
 - MANY PUBLIC USE PROGRAMS FORCED ONTO UPPER FLOORS

**CONSTRUCTION**  
 3½ YEAR PHASED PROJECT  
 - EXTENSIVE MODULAR CR'S REQ'D  
 + NO TEMPORARY GYM FACILITIES REQ'D  
 - TEMPORARY CAF./KITCHEN REQUIRED

**RELATIVE COSTS**  
**TOTAL PROJECT COST = \$386,376,693**  
**ESTIMATED CITY'S SHARE = \$173,976,178**

**NEW BUILDING - EXISTING SITE**

**BUILDABLE ACREAGE = 3.3**  
**BUILDING (GSF) = 594,000**  
**ALL NEW AREA (GSF) = 594,000**  
**NEW 6 STORY BLDG + 2 STORY BRIDGES**

**PARKING (GARAGE) = 1200 CAR CAPACITY**

**PROS/CONS**  
 + PROXIMITY TO TRANSPORTATION  
 + PROXIMITY TO CITY/SOCIAL SERVICES  
 + ADJACENT PKG GARAGE (COVERED)  
 + BENEFITS OF ALL NEW  
**CONSTRUCTION:**  
 ✓ ZONED FOR COMMUNITY/ACTIVITY  
 ✓ MEETS ALL SPACE NEEDS  
 ✓ MEETS MOST ALL EDUC OBJECTIVES  
 ✓ IDEAL FRESHMAN ORG./CLUSTERS  
 ✓ FIELD HS (MORE EFFIC./FLEXIBLE)  
 ✓ MORE EFFICIENT USE/OPERATIONS  
 + FORMER FA & 1922 BLDG'S AVAILABLE  
 - TRIGGERS HIGH RISE CONSTRUCTION  
 - PUBLIC PROGRAMS ON UPPER FLOORS  
 - NOT IDEAL NEW ORIENTATION  
 - WINDOWLESS SCIENCE LABS IN NEW  
 - LIMITED ACCESS TO GREEN SPACE

**CONSTRUCTION**  
 3 YEAR PHASED PROJECT  
 - EXTENSIVE MODULAR CR'S REQ'D  
 - NO TEMPORARY GYM FACILITIES REQ'D  
 - TEMPORARY CAF./KITCHEN REQUIRED

**RELATIVE COSTS**  
**TOTAL PROJECT COST = \$350,611,505**  
**ESTIMATED CITY'S SHARE = \$156,843,060**

**NEW BUILDING - EXPANDED SITE**

**BUILDABLE ACREAGE = 4.7**  
**BUILDING (GSF) = 576,500**  
**ALL NEW AREA (GSF) = 576,500**  
**NEW 5 STORY BLDG + 2 STORY BRIDGES**

**PARKING (GARAGE) = 1200 CAR CAPACITY**

**PROS/CONS**  
**SAME AS NEW ON EXIST, EXCEPT;**  
 + DOES NOT TRIGGER HIGH RISE CONSTR.  
 + GOOD COMMUNITY/ACTIVITY ZONE  
 + GOOD SOLAR ORIENTATION AT ALL CRS  
 + NO WINDOWLESS CLASSROOMS  
 - NO THRU-ROAD

**CONSTRUCTION**  
 3½ YEAR PHASED PROJECT  
 - EXTENSIVE MODULAR CR'S REQ'D  
 - TEMPORARY GYM FACILITIES REQ'D  
 - TEMPORARY CAF./KITCHEN REQUIRED

**RELATIVE COSTS**  
**TOTAL PROJECT COST = \$355,436,809**  
**ESTIMATED CITY'S SHARE = \$165,955,019**

**NEW SCHOOL AT WANG SITE**

**BUILDABLE ACREAGE = 14.7**  
**TOTAL SITE ACREAGE = 56.0**  
**BUILDING (GSF) = 571,500**  
**ALL NEW AREA (GSF) = 571,500**  
**4 STORY BLDG**

**PARKING (ON-SITE) = 430 CAR CAPACITY**

**PROS/CONS**  
**SAME AS NEW ON EXIST, EXCEPT;**  
 + MORE IDEAL 4 STORY CONSTRUCTION  
 + AMPLE ACCESS TO GREEN SPACE  
 + GOOD SOLAR ORIENTATION FOR ALL  
 + CO-LOCATED W/ MIDDLE+ELEM. SCHOOL  
 - LIMITED WALKABILITY/PUBLIC TRANSIT  
 - NOT CLOSE TO CITY SERVICES  
 - IN CLOSE PROXIMITY TO RESIDENTIAL AREAS (TRAFFIC + MASSING CONCERNS)

**CONSTRUCTION**  
 3 YEAR CONSTRUCTION  
 + NO PHASING OR MODULARS REQ'D  
 + NOT EDUCATIONALLY DISRUPTIVE  
 - FIELDS TO BE REPLICATED:  
 (1 SOCCER + 2 LITTLE LEAGUE FIELDS)

**RELATIVE COSTS**  
**TOTAL PROJECT COST = \$325,679,444**  
**ESTIMATED CITY'S SHARE = \$142,245,805**

**NEW SCHOOL AT CAWLEY SITE**

**BUILDABLE ACREAGE = 20.0**  
**(16.4 FOR NEW SCHOOL + 3.6 NEW FIELDS)**  
**TOTAL ACREAGE = 34.0 (4 IN TEWKSBURY)**  
**BUILDING (GSF) = 571,500**  
**ALL NEW AREA (GSF) = 571,500**  
**4 STORY BLDG**

**PARKING (ON-SITE) = 608 CAR CAPACITY**

**PROS/CONS**  
**SAME AS NEW AT WANG, EXCEPT;**  
 + ADJACENT TO FOOTBALL STADIUM  
 + AMPLE ACCESS TO GREEN SPACE  
 + NOT CO-LOCATED W/ OTHER SCHOOLS  
 +/- MORE ACCOMMODATING ACCESS  
 - SIGNIFICANT FIELD REPLICATION REQ'D:  
 (MARTIN SOFTBALL + PRACTICE INFIELD, FIELD HOCKEY/LAX PRACTICE FIELD, DESMOND FR & MACHADO JV FOOTBALL PRACTICE FIELDS)

**CONSTRUCTION**  
 3 YEAR CONSTRUCTION  
 + NO PHASING OR MODULARS REQ'D  
 + NOT EDUCATIONALLY DISRUPTIVE

**RELATIVE COSTS**  
**TOTAL PROJECT COST = \$332,458,871**  
**ESTIMATED CITY'S SHARE = \$148,341,142**

<b>OPTIONS</b>	<b>Total Project Budget</b>	<b>District Share</b>	<b>Debt Service Payment (Per year/ 30 year Term)*</b>	<b>Tax Increase on \$253,908 home</b>
<b>Base Repair</b>	\$ 270,770,332.00	\$ 73,242,815.00	\$4.71 million	\$144
<b>Full Renovation</b>	\$ 331,360,298.00	\$ 116,472,533.00	\$7.49 million	\$229
<b>Add/ Reno Option #1A</b>	\$ 340,980,538.00	\$ 132,448,689.00	\$8.52 million	\$260
<b>Add/ Reno Option #2</b>	\$ 344,087,262.00	\$ 135,614,525.00	\$8.72 million	\$266
<b>Add/ Reno Option #3 Expanded Site</b>	\$ 334,335,971.00	\$ 126,417,978.00	\$8.13 million	\$248
<b>Add/ Reno Option #4</b>	\$ 376,371,511.00	\$ 165,786,170.00	\$10.67 million	\$326
<b>Add/ Reno Option #5 Expanded Site</b>	\$ 386,376,693.00	\$ 173,976,178.00	\$11.19 million	\$342
<b>New School at Existing Site (HR)</b>	\$ 350,611,505.00	\$ 156,843,060.00	\$10.09 million	\$308
<b>New School at Expanded Existing Site</b>	\$ 355,436,809.00	\$ 165,955,019.00	\$10.68 million	\$326
<b>New School Wang Site</b>	\$ 325,679,444.00	\$ 142,245,805.00	\$9.15 million	\$279
<b>New School Cawley Site</b>	\$ 332,458,871.00	\$ 148,341,142.00	\$9.54 million	\$291

**Design Options**

Gross Floor Area (sf) =	Base Repair		Full Renovation		Add/Reno Option 1A		Add/Reno Option 2		Add/Reno Option 3		
	Existing Site		Existing Site		Existing Site		Existing Site		Expanded Existing Site		
	1	628,000	2	641,670	3	617,356	4	624,138	5	638,701	
	Element (\$)	\$/sf	Element (\$)	\$/sf							
A10 Foundations	226,905	0.36	561,754	0.88	2,645,140	4.28	4,039,209	6.47	4,137,668	6.48	
B10 Superstructure	2,959,569	4.71	4,337,827	6.76	6,050,089	9.80	8,850,317	14.18	8,093,974	12.67	
B20 Exterior Closure	6,055,060	9.64	10,473,118	16.32	11,713,484	18.97	14,573,055	23.35	12,536,748	19.63	
B30 Roofing	8,588,349	13.68	7,191,260	11.21	9,136,869	14.80	5,920,305	9.49	3,763,162	5.89	
C10 Interior Construction	7,401,877	11.79	16,143,075	25.16	16,567,339	26.84	17,409,776	27.89	14,008,472	21.93	
C20 Staircases	1,801,578	2.87	2,165,269	3.37	2,169,579	3.51	2,268,558	3.63	1,749,412	2.74	
C30 Interior Finishes	10,720,322	17.07	13,799,685	21.51	14,672,396	23.77	15,930,197	25.52	12,694,483	19.88	
<b>D Services</b>	<b>67,552,964</b>	<b>107.57</b>	<b>68,986,639</b>	<b>107.51</b>	<b>68,511,556</b>	<b>110.98</b>	<b>71,029,916</b>	<b>113.80</b>	<b>72,462,044</b>	<b>113.45</b>	
D10 Conveying Systems	477,962	0.76	491,575	0.77	506,232	0.82	532,641	0.85	322,297	0.50	
D20 Plumbing	9,897,224	15.76	7,374,728	11.49	7,300,670	11.83	7,543,104	12.09	7,762,398	12.15	
D30 HVAC	26,295,941	41.87	30,571,461	47.64	30,330,739	49.13	31,449,323	50.39	32,107,207	50.27	
D40 Fire Protection Systems	4,035,314	6.43	4,011,264	6.25	4,000,467	6.48	4,166,760	6.68	4,265,218	6.68	
D 50 Electrical Systems	26,846,523	42.75	26,537,611	41.36	26,373,448	42.72	27,338,090	43.80	28,004,924	43.85	
<b>E Equipment and Furnishings</b>	<b>6,072,937</b>	<b>9.67</b>	<b>8,144,666</b>	<b>12.69</b>	<b>8,445,430</b>	<b>13.68</b>	<b>8,997,477</b>	<b>14.42</b>	<b>8,308,265</b>	<b>13.01</b>	
E10 Equipment	4,298,015	6.84	4,582,852	7.14	5,105,534	8.27	5,757,667	9.22	4,764,128	7.46	
E 20 Fixed Furnishings	1,774,922	2.83	3,561,814	5.55	3,339,896	5.41	3,239,810	5.19	3,544,137	5.55	
F10 Special Construction	0	0	36,986	0.06	2,481,771	4.02	2,420,764	3.88	2,482,585	3.89	
F10 Special Construction	0	0.00	36,986	0.06	2,481,771	4.02	2,420,764	3.88	2,482,585	3.89	
<b>F20 Selective Building Demolition</b>	<b>8,084,276</b>	<b>12.87</b>	<b>11,220,341</b>	<b>17.49</b>	<b>10,299,414</b>	<b>16.68</b>	<b>8,697,370</b>	<b>13.94</b>	<b>6,531,277</b>	<b>10.23</b>	
F2010 Selective/Building Demolition	3,894,276	6.20	7,030,341	10.96	6,554,414	10.62	4,364,524	6.99	2,198,431	3.44	
F2020 Bulk Demo					72,000	0.12	659,846	1.06	659,846	1.03	
F20 Hazardous Abatement	4,190,000	6.67	4,190,000	6.53	3,673,000	5.95	3,673,000	5.88	3,673,000	5.75	
<b>Sub Total Building Cost</b>	<b>119,463,837</b>	<b>190.23</b>	<b>143,060,620</b>	<b>222.95</b>	<b>152,693,067</b>	<b>247.33</b>	<b>160,136,944</b>	<b>256.57</b>	<b>146,768,090</b>	<b>229.79</b>	
G10 Site Preparation	293,707		577,837		796,152		796,152		981,921		
G20 Site Improvements	336,156		1,456,514		2,366,088		2,366,088		2,918,175		
G30 Site Civil/Mechanical Utilities	457,000		628,129		746,694		746,694		921,233		
G 40 Site Electrical	673,000		629,977		563,568		563,568		695,067		
<b>Sub Total Construction</b>	<b>121,223,700</b>	<b>193.03</b>	<b>146,353,077</b>	<b>228.08</b>	<b>157,165,569</b>	<b>254.58</b>	<b>164,609,446</b>	<b>263.74</b>	<b>152,284,486</b>	<b>238.43</b>	
Design Contingency 15% reno & 10% new	18,183,555	28.95	21,513,902	33.53	22,097,479	35.79	21,679,064	34.73	19,675,156	30.80	
General Conditions \$300k/mo. (reno) 250k/mo. (reno)	66mo.		15,000,000						13,500,000		
	60mo.				13,500,000						
	54mo.								13,500,000		
	48 mo.	12,000,000					12,000,000				
	42 mo.										
	36 mo.	0	0.00	0	0.00	0	0.00	0	0.00	0	
	30 mo	0	0.00	0	0.00	0	0.00	0	0.00	0	
Phasing	3.00%	4,182,218		5,036,009		5,377,891		5,588,655		5,158,789	
Sub Total		155,589,473	247.75	187,902,989	292.83	198,140,939	320.95	203,877,165	326.65	190,618,430	298.45
General Requirements	4.00%	6,223,579	9.91	7,516,120	11.71	7,925,638	12.84	8,155,087	13.07	7,624,737	11.94
Sub Total		161,813,052	257.66	195,419,108	304.55	206,066,577	333.79	212,032,252	339.72	198,243,168	310.38
Bonds	1.00%	1,618,131	2.58	1,954,191	3.05	2,060,666	3.34	2,120,323	3.40	1,982,432	3.10
CDI / Subguard	1.25%	2,042,890	3.25	2,467,166	3.84	2,601,591	4.21	2,676,907	4.29	2,502,820	3.92
Insurance - CCIP	2.65%	4,385,063	6.98	5,295,772	8.25	5,584,314	9.05	5,745,981	9.21	5,372,303	8.41
Permits (Assumes Limited Fees)	0.00%	0	0.00	0	0.00	0	0.00	0	0.00	0	
Sub Total		169,859,135	270.48	205,136,238	319.69	216,313,147	350.39	222,575,463	356.61	208,100,722	325.82
GMP Contingency	3.00%	5,095,774	8.11	6,154,087	9.59	6,181,997	10.01	6,360,968	10.19	5,947,295	9.31
CM Fee & OH	2.50%	4,373,873	6.96	5,282,258	8.23	5,562,379	9.01	5,723,411	9.17	5,351,200	8.38
Sub Total		179,328,782	285.56	216,572,583	337.51	228,057,523	369.41	234,659,841	375.97	219,399,218	343.51
Escal. 3% per yr. til mid point construction		25,070,164	39.92	35,236,359	54.91	34,482,297	55.85	32,805,446	52.56	33,173,162	51.94
<b>Sub Total Construction Cost</b>		<b>204,398,945</b>	<b>325.48</b>	<b>251,808,942</b>	<b>392.43</b>	<b>262,539,820</b>	<b>425.26</b>	<b>267,465,287</b>	<b>428.54</b>	<b>252,572,380</b>	<b>395.45</b>
Temp Facilities 32 Classroom Allowance		5,225,406	48 mo.	6,264,186	60 mo.	2,867,869	54 mo.	16 cr			
Temp Facilities Gym Allowance		1,884,158	24 mo.								
Temp Facilities Admin											
Temp Facilities Cafeteria											
Temp Facilities Support											
<b>Total Construction Cost</b>		<b>211,508,510</b>	<b>336.80</b>	<b>259,957,287</b>	<b>405.13</b>	<b>267,291,848</b>	<b>432.96</b>	<b>269,349,445</b>	<b>431.55</b>	<b>252,572,380</b>	<b>395.45</b>
<b>Project Soft Costs</b>		<b>43,592,139</b>	<b>69.41</b>	<b>52,075,311</b>	<b>81.16</b>	<b>53,550,809</b>	<b>86.74</b>	<b>54,228,063</b>	<b>86.88</b>	<b>62,062,946</b>	<b>97.17</b>
Reimbursable soft cost allowance per MSBA (max 20% of Construction Cost)		34,043,669	54.21	42,526,841	66.28	44,002,339	71.28	44,679,593	71.59	50,514,476	79.09
A/E Fee included above											
OPM Fee included above											
Owner / Architect Consultants included above											
Legal included above											
Utility Allowance included above											
FF&E Allowance \$1200 per Student	\$1,200	3520	4,224,000	4,224,000	4,224,000	4,224,000	4,224,000	4,224,000	4,224,000	4,224,000	
IT Allowance \$1200 per Student	\$1,200	3520	4,224,000	4,224,000	4,224,000	4,224,000	4,224,000	4,224,000	4,224,000	4,224,000	
FF&E Allowance over MSBA			443,520	443,520	443,520	443,520	443,520	443,520	443,520	443,520	
IT Allowance over MSBA			356,950	356,950	356,950	356,950	356,950	356,950	356,950	356,950	
Moving Allowance			300,000	300,000	300,000	300,000	300,000	300,000	300,000	300,000	
Land Acquisition			0	0	0	0	0	0	0	2,000,000	
<b>Total Project Cost</b>		<b>255,100,649</b>	<b>406.21</b>	<b>312,032,598</b>	<b>486.28</b>	<b>320,842,657</b>	<b>519.70</b>	<b>323,577,508</b>	<b>518.44</b>	<b>314,635,326</b>	<b>492.62</b>
Owner Construction Contingency	7%	14,307,926		17,626,626		18,377,787		18,722,570		17,680,067	
Owner Soft Cost Contingency	4%	1,361,747		1,701,074		1,760,094		1,787,184		2,020,579	
<b>Total Project Budget</b>		<b>270,770,322</b>	<b>431.16</b>	<b>331,360,298</b>	<b>516.40</b>	<b>340,980,538</b>	<b>552.32</b>	<b>344,087,262</b>	<b>551.30</b>	<b>334,335,971</b>	<b>523.46</b>

Add/Reno Option 4		Add/Reno Option 5		New School		New School		New School		New School	
Existing Site		Expanded Existing Site		Existing Site		Expanded Existing Site		Wang Site		Cawley Site	
6	619,002	7	620,872	8	594,020	9	576,460	10	571,513	11	571,513
Element (\$)	\$/sf	Element (\$)	\$/sf	Element (\$)	\$/sf	Element (\$)	\$/sf	Element (\$)	\$/sf	Element (\$)	\$/sf
6,303,789	10.18	6,341,507	10.21	6,272,851	10.56	9,085,010	15.76	6,035,177	10.56	6,035,177	10.56
11,714,937	18.93	11,774,852	18.97	20,903,564	35.19	21,011,967	36.45	20,111,542	35.19	20,111,542	35.19
17,095,528	27.62	17,170,403	27.66	20,766,939	34.96	20,153,042	34.96	19,980,094	34.96	19,980,094	34.96
4,828,475	7.80	4,835,955	7.79	3,558,180	5.99	3,447,231	5.98	3,423,363	5.99	3,423,363	5.99
17,199,273	27.79	17,253,783	27.79	17,725,557	29.84	15,431,834	26.77	17,053,948	29.84	17,053,948	29.84
2,227,609	3.60	2,234,565	3.60	1,556,332	2.62	1,510,325	2.62	1,497,364	2.62	1,497,364	2.62
16,546,398	26.73	16,605,041	26.74	14,618,832	24.61	17,622,382	30.57	14,064,935	24.61	14,064,935	24.61
69,016,927	111.50	69,226,816	111.50	68,888,499	115.97	65,733,734	114.03	66,278,363	115.97	66,278,363	115.97
525,886	0.85	527,550	0.85	493,037	0.83	478,462	0.83	474,356	0.83	474,356	0.83
7,298,366	11.79	7,320,320	11.79	7,241,104	12.19	9,459,709	16.41	6,966,743	12.19	6,966,743	12.19
30,563,990	49.38	30,656,985	49.38	31,584,043	53.17	27,099,385	47.01	30,387,346	53.17	30,387,346	53.17
4,072,102	6.58	4,084,668	6.58	3,979,934	6.70	3,862,282	6.70	3,829,137	6.70	3,829,137	6.70
26,556,584	42.90	26,637,293	42.90	25,590,382	43.08	24,833,897	43.08	24,620,780	43.08	24,620,780	43.08
9,037,964	14.60	9,067,753	14.60	9,629,064	16.21	9,465,473	16.42	9,264,226	16.21	9,264,226	16.21
6,155,613	9.94	6,178,708	9.95	5,999,602	10.10	5,914,480	10.26	5,772,281	10.10	5,772,281	10.10
2,882,351	4.66	2,889,045	4.65	3,629,462	6.11	3,550,994	6.16	3,491,944	6.11	3,491,944	6.11
3,854,976	6.23	3,878,295	6.25	997,954	1.68	968,453	1.68	960,142	1.68	960,142	1.68
3,854,976	6.23	3,878,295	6.25	997,954	1.68	968,453	1.68	960,142	1.68	960,142	1.68
9,419,859	15.22	9,419,859	15.17	3,721,763	12.12	3,721,763	10.48	0.00	0.00	0	0.00
4,573,096	7.39	4,573,096	7.37	0	0.00	0	0.00	0	0.00	0	0.00
1,173,763	1.90	1,173,763	1.89	1,173,763	6.06	1,173,763	6.06	0	0.00	0	0.00
3,673,000	5.93	3,673,000	5.92	2,548,000	6.06	2,548,000	4.42	0	0.00	0	0.00
<b>167,245,735</b>	<b>270.19</b>	<b>167,808,829</b>	<b>270.28</b>	<b>168,639,536</b>	<b>283.90</b>	<b>168,151,213</b>	<b>291.70</b>	<b>158,669,154</b>	<b>277.63</b>	<b>158,669,154</b>	<b>277.63</b>
797,952		981,921		437,884		623,652		1,950,572		2,653,840	
2,366,088		2,918,175		1,301,348		1,853,436		5,796,916		7,886,960	
746,694		920,923		410,682		584,910		1,830,018		2,489,820	
563,568		695,067		309,962		441,462		1,380,742		1,878,560	
<b>171,720,037</b>	<b>277.41</b>	<b>173,324,915</b>	<b>279.16</b>	<b>171,099,412</b>	<b>288.04</b>	<b>171,654,673</b>	<b>297.77</b>	<b>169,627,402</b>	<b>296.80</b>	<b>173,578,334</b>	<b>303.72</b>
20,915,500	33.79	21,370,962	34.42	17,109,941	28.80	17,165,467	29.78	16,962,740	29.68	17,357,833	30.37
15,000,000		16,500,000									
0	0.00	0	0.00	12,600,000	21.21	12,600,000	21.86	10,800,000	18.90	10,800,000	18.90
0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
5,779,066		5,840,876									
213,414,604	344.77	217,036,753	349.57	200,809,353	338.05	201,420,141	349.41	197,390,142	345.38	201,736,168	352.99
8,536,584	13.79	8,681,470	13.98	8,032,374	13.52	8,056,806	13.98	7,895,606	13.82	8,069,447	14.12
221,951,188	358.56	225,718,224	363.55	208,841,727	351.57	209,476,946	363.39	205,285,748	359.20	209,805,614	367.11
2,219,512	3.59	2,257,182	3.64	2,088,417	3.52	2,094,769	3.63	2,052,857	3.59	2,098,056	3.67
2,802,134	4.53	2,849,693	4.59	2,636,627	4.44	2,644,646	4.59	2,591,733	4.53	2,648,796	4.63
6,014,780	9.72	6,116,865	9.85	5,659,519	9.53	5,676,734	9.85	5,563,154	9.73	5,685,640	9.95
0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
232,987,613	376.39	236,941,964	381.63	219,226,290	369.06	219,893,096	381.45	215,493,492	377.06	220,238,107	385.36
6,658,536	10.76	6,771,547	10.91	6,265,252	10.55	6,284,308	10.90	6,158,572	10.78	6,294,168	11.01
5,991,154	9.68	6,092,838	9.81	5,637,289	9.49	5,654,435	9.81	5,541,302	9.70	5,663,307	9.91
245,637,303	396.83	249,806,348	402.35	231,128,831	389.09	231,831,839	402.16	227,193,366	397.53	232,195,582	406.28
39,965,189	64.56	43,541,246	70.13	29,700,055	50.00	29,790,391	51.68	26,649,782	46.63	27,236,542	47.66
<b>285,602,492</b>	<b>461.39</b>	<b>293,347,594</b>	<b>472.48</b>	<b>260,828,886</b>	<b>439.09</b>	<b>261,622,231</b>	<b>453.84</b>	<b>253,843,148</b>	<b>444.16</b>	<b>259,432,124</b>	<b>453.94</b>
4,290,377	36 mo.	4,745,173	42 mo.	8,580,755	36 mo.	9,490,347	42 mo.	0		0	
2,648,705	36 mo.			2,648,705	36 mo.	3,047,807	42 mo.				
1,206,669	36 mo.	1,334,580	42 mo.	1,206,669	36 mo.	1,334,580	42 mo.				
1,340,743	36 mo.	1,482,867	42 mo.	1,340,743	36 mo.	1,482,867	42 mo.				
2,681,486	36 mo.	2,965,733	42 mo.	2,681,486	36 mo.	2,965,733	42 mo.				
<b>297,770,471</b>	<b>481.05</b>	<b>303,875,948</b>	<b>489.43</b>	<b>277,287,242</b>	<b>466.80</b>	<b>279,943,564</b>	<b>485.63</b>	<b>253,843,148</b>	<b>444.16</b>	<b>259,432,124</b>	<b>453.94</b>
<b>56,721,927</b>	<b>91.63</b>	<b>60,027,262</b>	<b>96.68</b>	<b>53,315,557</b>	<b>89.75</b>	<b>55,424,641</b>	<b>96.15</b>	<b>52,355,014</b>	<b>91.61</b>	<b>53,123,498</b>	<b>92.95</b>
47,173,457	76.21	48,478,792	78.08	43,767,087	73.68	43,876,171	76.11	42,806,544	74.90	43,575,028	76.25
4,224,000		4,224,000		4,224,000		4,224,000		4,224,000		4,224,000	
4,224,000		4,224,000		4,224,000		4,224,000		4,224,000		4,224,000	
443,520		443,520		443,520		443,520		443,520		443,520	
356,950		356,950		356,950		356,950		356,950		356,950	
300,000		300,000		300,000		300,000		300,000		300,000	
0		2,000,000		0		2,000,000		0		0	
<b>354,492,399</b>	<b>572.68</b>	<b>363,903,210</b>	<b>586.12</b>	<b>330,602,799</b>	<b>556.55</b>	<b>335,368,206</b>	<b>581.77</b>	<b>306,198,162</b>	<b>535.77</b>	<b>312,555,622</b>	<b>546.89</b>
19,992,174		20,534,332		18,258,022		18,313,556		17,769,020		18,160,249	
1,886,938		1,939,152		1,750,683		1,755,047		1,712,262		1,743,001	
<b>376,371,511</b>	<b>608.03</b>	<b>386,376,693</b>	<b>622.31</b>	<b>350,611,505</b>	<b>590.24</b>	<b>355,436,809</b>	<b>616.59</b>	<b>325,679,444</b>	<b>569.85</b>	<b>332,458,871</b>	<b>581.72</b>