

# MANCHESTER PUBLIC SCHOOLS



## Elementary School Facilities Options Report

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Manchester Board of Education  
3/20/2014

# Elementary School Facility Options

## Option 1: Pages 1-8

5<sup>th</sup> & 6<sup>th</sup> Grade Bennet Academy  
New Verplanck (525 students)  
Current Verplanck as swing space

Like New Robertson (425) students  
Close Washington  
Like New Renovation Remaining K-4 Schools

## Option 2: Pages 9-13

5<sup>th</sup> & 6<sup>th</sup> Grade Bennet Academy  
New Verplanck (350 students)  
Close Washington

Like New Robertson (325 students)  
Current Verplanck (swing space)  
Like New Renovation Remaining K-4 Schools

## Option 3: Pages 14-22

5<sup>th</sup> & 6<sup>th</sup> Grade Bennet Academy  
Close Washington

Like New Renovation Waddell (525 students)  
Like New Renovation Remaining K-4 Schools

## Option 4: Pages 23-35

5<sup>th</sup> & 6<sup>th</sup> Grade Bennet Academy  
New Verplanck (525 students)  
Current Verplanck as swing space

Like New Waddell (525 students)  
Close Washington and Robertson  
Like New Renovation Remaining K-4 Schools

## Option 5: Pages 36-48

5<sup>th</sup> & 6<sup>th</sup> Grade Bennet Academy  
Like New Verplanck (525 students)  
Like New Renovation Remaining K-4 Schools

Like New Waddell (525 students)  
Close Washington & Robertson

## Option 6: Pages 49-52

5<sup>th</sup> & 6<sup>th</sup> Grade Bennet Academy

Like New Renovation Remaining K-4 Schools

## Option 7: Pages 53-56

Renovate like new all 8 Elementary Schools K-5 Grade Configuration

Pages 57-58: Summary of School Capital Construction Options

Page 59: Summary Analysis of School Capital Construction Options

# Option #1 – Grade Configuration K-4, 5-6, 7-8, 9-12

## Option Summary

- Construct a grade 5 school at the Bennet Academy and Cheney building site.
- Construct a new elementary school at the current Verplanck School site for 525 students.
- Close Washington School and redistrict students to the new Verplanck School, Keeney School, and other schools contiguous to the Washington School zone.
- a. Construct a like-new renovation at Robertson School to accommodate 425 students.
- b. Move Robertson School students to current Verplanck School and others schools as needed during the construction at Robertson School.
- Complete the renovation and/or like-new renovation of all remaining K-4 elementary schools (except Highland Park School) in priority order based on Board’s critical school facility assessment.
- Use the current Verplanck School and other schools as swing space during the renovation and/or like-new renovation of the remaining elementary schools.

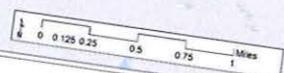
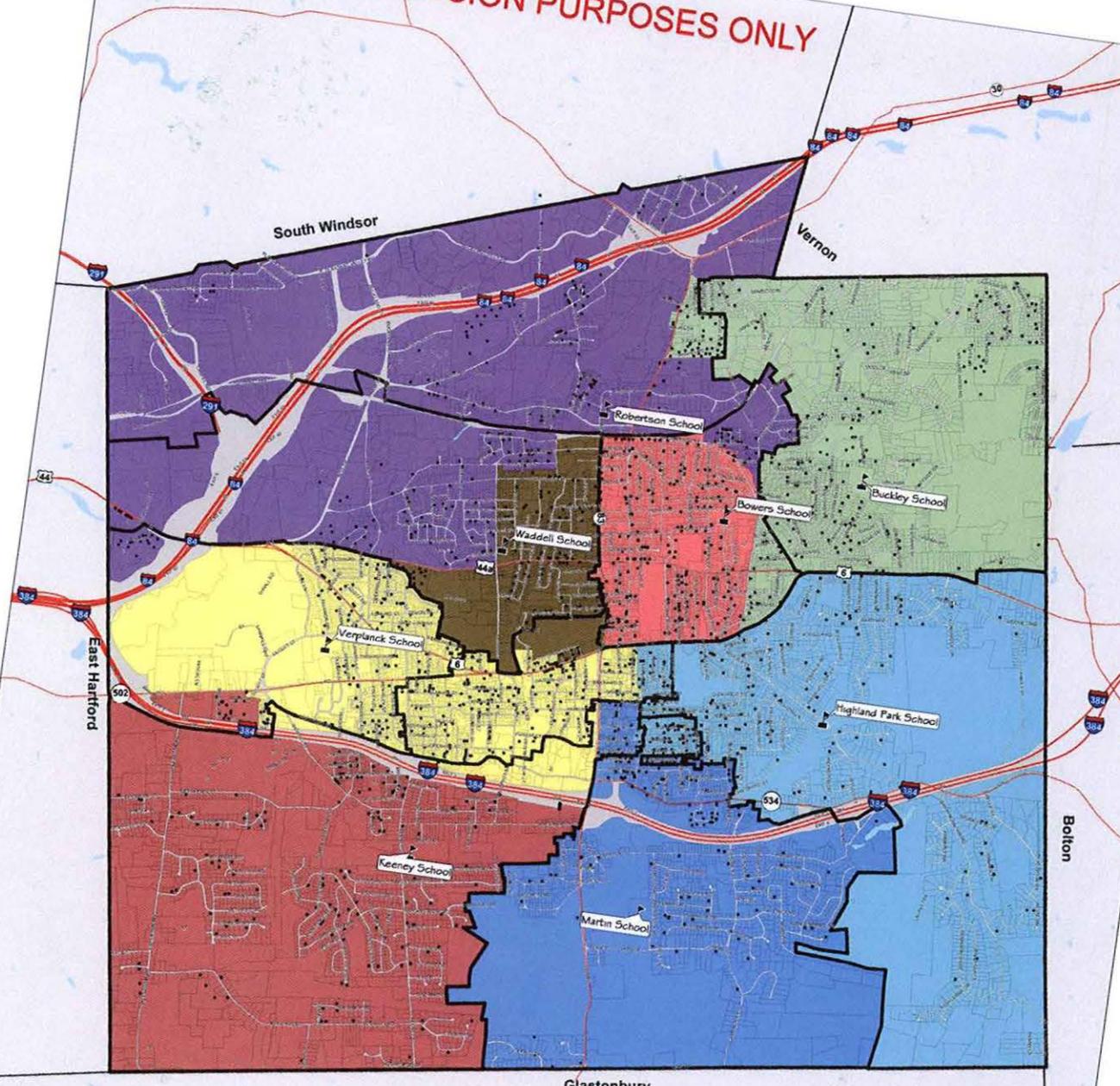
Option # 1							
Enrollment – Classroom Utilization – Racial Balance - (2013-14 Enrollments)							
School Facility	K-4 Enrollment	Full Size K-4 Classrooms	Targeted Capacity*	Percent Utilization	Percent Minority	Racial Imbalance	Percent Free and Reduced
Bowers	292	21	462	63.2%	55.1%	6.6%	55.5%
Buckley	329	22	484	68.0%	51.1%	10.7%	40.7%
Highland Park	318	15	320	99.4%	51.3%	10.5%	54.7%
Keeney	260	18	396	65.7%	53.8%	7.9%	40.8%
Martin	216	15	330	65.5%	53.7%	8.1%	51.4%
Robertson	430	TBD	425	101.2%	73.3%	-11.5%	51.2%
Verplanck	523	TBD	525	99.6%	75.1%	-13.4%	78.2%
Waddell	164	19	418	39.2%	65.9%	-4.1%	69.5%
Washington							
<b>District K-4 Total</b>	<b>2,532</b>		<b>3,360</b>	<b>75.4%</b>	<b>61.8%</b>		<b>56.5%</b>

\* Capacity was set at 22 students per classroom except Highland Park, Verplanck, and Robertson which were set by construction targets

### Estimated Movement and Retention of K-4 Students

Post Redistricting →	Bowers		Buckley		Highland Park		Keeney		Martin		Robertson		Verplanck		Waddell		Washington	
	#	%	#	%	#	#	%	#	%	#	#	%	#	%	#	%	#	%
Current School ↓																		
Bowers	275	76.0%	28	7.7%	2	0.6%	0	0.0%	4	1.1%	31	8.6%	0	0.0%	5	1.4%	0	0.0%
Buckley	3	1.2%	227	88.3%	6	2.3%	0	0.0%	3	1.2%	10	3.9%	7	2.7%	1	0.4%	0	0.0%
Highland Park	1	0.4%	0	0.0%	190	84.1%	0	0.0%	25	11.1%	4	1.8%	3	1.3%	0	0.0%	0	0.0%
Keeney	3	1.1%	0	0.0%	15	5.6%	198	73.3%	20	7.4%	2	0.7%	0	0.0%	3	1.1%	0	0.0%
Martin	5	2.2%	0	0.0%	66	28.4%	0	0.0%	150	64.7%	3	1.3%	6	2.6%	2	0.9%	0	0.0%
Robertson	2	0.6%	74	22.5%	2	0.6%	0	0.0%	9	2.7%	240	72.9%	0	0.0%	0	0.0%	0	0.0%
Verplanck	0	0.0%	0	0.0%	0	0.0%	60	18.3%	2	0.6%	15	4.6%	248	75.8%	2	0.6%	0	0.0%
Waddell	2	0.7%	0	0.0%	1	0.4%	0	0.0%	3	1.1%	125	44.6%	7	2.5%	140	50.0%	0	0.0%
Washington	1	0.3%	0	0.0%	36	11.9%	2	0.7%	0	0.0%	0	0.0%	252	83.2%	11	3.6%	0	0.0%
	292		329		318		260		216		430		523		164		0	

**DRAFT FOR DISCUSSION PURPOSES ONLY**



Manchester Public Schools



Manchester Proposed Redistricting Options  
Option # 1

- Attendance Area**
- Bowers School District
  - Buckley School District
  - Highland Park School District
  - Keeney School District
  - Martin School District
  - Robertson School District
  - Verplanck School District
  - Waddell School District
  - Districts as Adopted 2012

Date: February 2014  
 Source: Town of Manchester, CT GIS Department  
 City Parcel Database  
 Manchester Board of Education  
 School Locations  
 School District Squares & Enrollment  
 Database (Oct. 2013)



## OPTION #1 ANALYSIS

- ❖ 5th & 6th Grade Bennet Academy
- ❖ New Verplanck (525 Students)
- ❖ Remaining 5 Elementary Schools K-4 Configuration

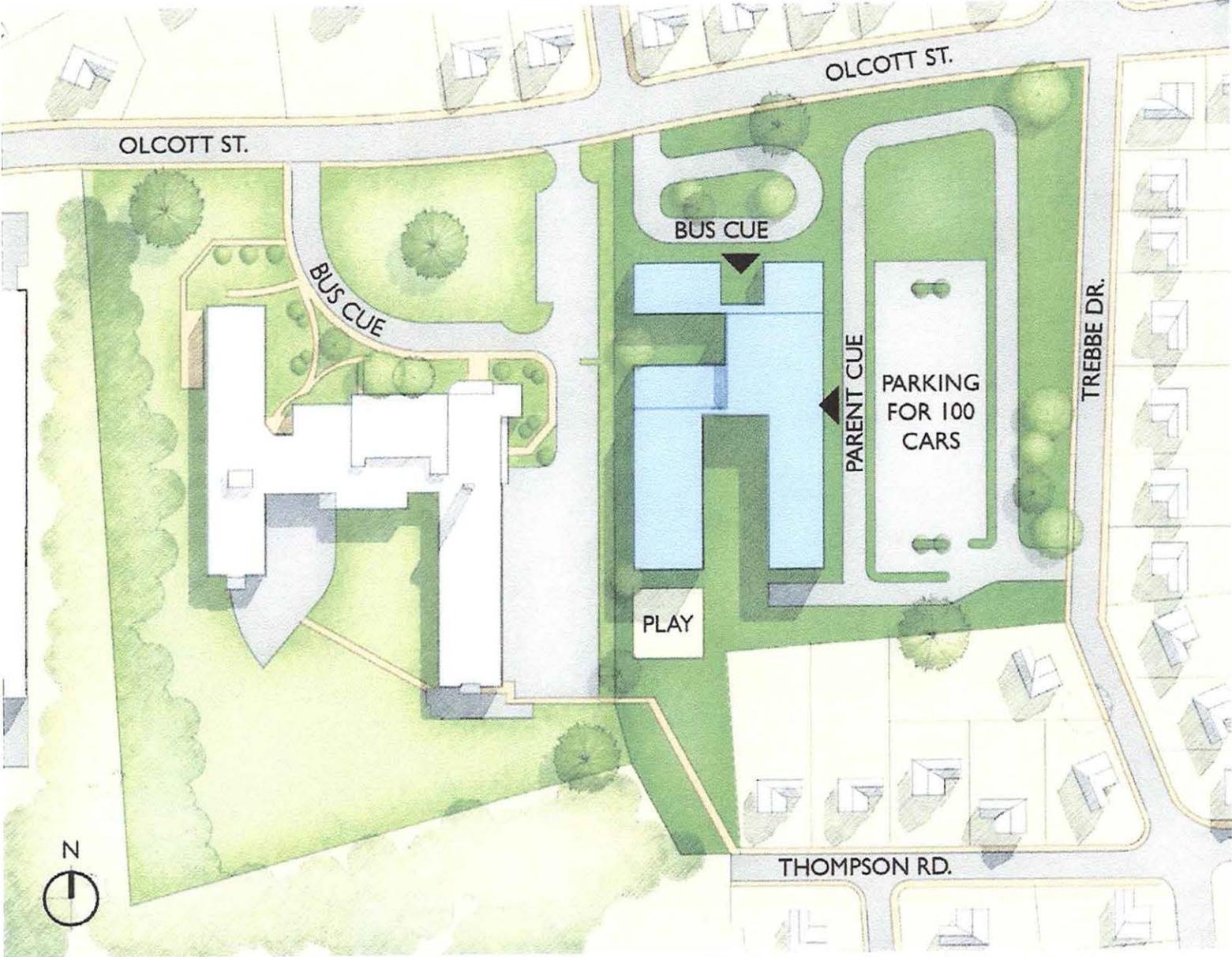
- ❖ Like New Robertson (425 Students)
- ❖ Current Verplanck (swing space)
- ❖ Close Washington

	Start Year	\$/sq. ft.	Actual Building Sq. Ft.	Projected 8 yr. Enrollment 2016-2023	Allowable S.F.	New Construction & Like New Renovation Cost	Projected Reimbursement	Town Cost Share	Effective Reimbursement Rate
District Wide K-4 Space			392,518	2,764	331,680	\$ 212,601,325	\$ 107,789,616	\$ 104,811,709	50.7%
Renovation Cost Per Sq. Ft.	2014	\$ 400	sq. ft.			\$ 26,575,166	Average Cost Per School (2014 dollars)		
Escalation Rate		3%							
New Verplanck	2017	\$ 558	72,000			\$ 40,169,902			
Robertson	2019	\$ 464	51,000			\$ 23,649,191			
Buckley	2021	\$ 492	57,357			\$ 28,216,750			
Keeney	2023	\$ 522	50,200			\$ 26,199,846			
Waddell	2025	\$ 554	66,363			\$ 36,744,765			
Bowers	2027	\$ 587	54,637			\$ 32,094,511			
Martin	2029	\$ 623	40,961			\$ 25,526,361			
<b>Total Elementary New Verplanck&amp; Like-New Renovation</b>				2,764	331,680	\$ 212,601,325	\$ 107,789,616.11	\$ 104,811,709	50.7%
Bennet Middle School (5&6) 2016			~ 162,000	937	138,676	\$ 17,400,000	\$ 10,440,000.00	\$ 6,960,000	60.0%
<b>Total Combined Costs</b>			554,518	3,701	470,356	230,001,325	118,229,616	111,771,709	51.4%

**Notes - Option #1:**

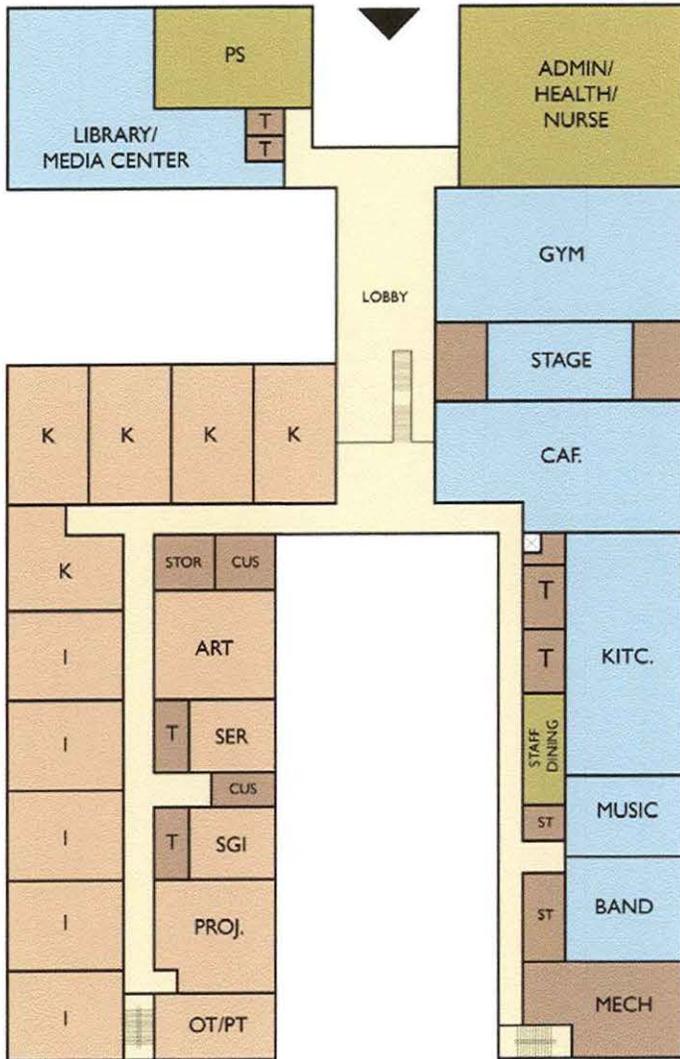
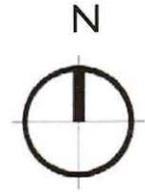
- 1) Actual building sq. ft. is the sum of the 6 elementary schools to be renovated like new plus the proposed new Verplanck School
- 2) The projected K-4 peak is for all K-4 students 3,064 minus 300 students at Highland Park Elementary is based on peak 8 yr. enrollment data from 12/10/13 study by Peter M. Prowda.
- 3) Allowable sq.ft. is 120 per pupil for grades K-4 and 148 for grades 5 & 6 based on State Space Standards
- 4) Allowable sq.ft. has not been adjusted for pre-1950's construction due to incomplete data across the district (conservative approach).
- 5) Effective Reimbursement Rate is a proration based on the ratio of allowable to actual building square footage of an assumed net 60% rate , 2014 SDE rate of 65.71 reduced based on past project experience.
- 6) The cost per square foot and projected escalation of these costs are for comparison purposes only.
- 7) The allowable sq.ft. for Bennet 5th/6th grade academy is based on peak 8 yr. enrollment data from 12/10/13 study by Peter M. Prowda.
- 8) The projected reimbursement rate for Bennet 5th/6th grade academy is based on approval of Special Legislation that will be required for grant funding.
- 9) The projected cost per square foot for New Verplanck is based on 90% of the total project cost estimated by Tai Soo Kim Partners which included 20% construction contingency.
- 10) Priority of renovations based on input from District Facilities Manager.

# Site – New Building

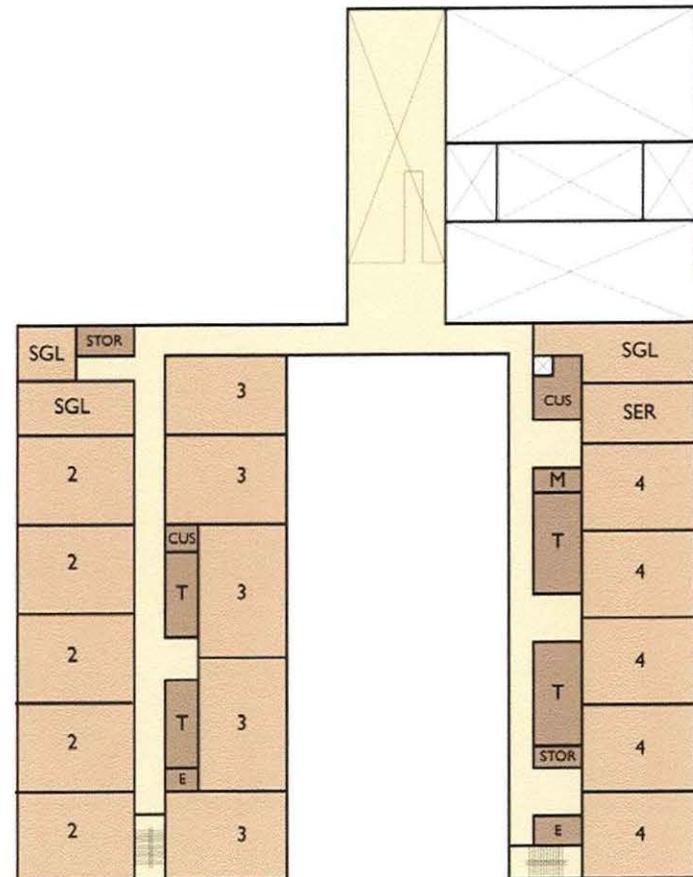


# Floor Plan – New Building

- CLASSROOM
- CIRCULATION
- ADMINISTRATION
- UTILITY & SERVICE
- CORE



Level 1



Level 2

## Program – New Building

Classrooms	
Enrollment Projection	525 Students
# of Classrooms Needed	25 Classrooms @ 21 students
Program	New
Classrooms	25 @ 900 SF = 22,500 SF
Special Education	3 @ 600 SF = 1,800 SF
Small Group	3 @ 600 SF = 1,800 SF
OP/PT	750 SF
Project Classroom	1,200 SF
Art Classroom	1,250 SF
Music Classroom	900 SF
Band/Orchestra/Chorus	1,200 SF
Admin/Heath/Nurse	4,000 SF
Pupil Services	1,500 SF
Staff Work	400 SF
Staff Lounge	450 SF
Cafeteria	2,850 SF
Library/Media Center	3,300 SF
Gymnasium	6,000 SF
NET SF	49,900 SF
<b>GROSS SF</b>	<b>72,000 SF</b>

## Conceptual Budget – New Building

New School	
New Construction	\$23,040,000
Sitework Allowance	\$2,000,000
Sub Total	<b>\$25,040,000</b>
Estimate Contingency	\$5,008,000
Escalation	\$2,704,320
Bond Costs	\$327,523
CM Fee	\$661,597
CM Reimbursables	\$1,965,139
<b>Total Construction Cost</b>	<b>\$35,706,579</b>
Soft Costs	<b>\$8,926,645</b>
<b>Total Project Costs</b>	<b>\$44,633,224</b>
Estimated Eligible Costs	\$42,401,563
Estimated Net State Reimbursement Percentage	55%
<b>Estimated Net Cost to Manchester</b>	<b>\$21,312,364</b>

## Option 1

5<sup>th</sup> & 6<sup>th</sup> Grade Bennet Academy  
New Verplanck (525 students)  
Current Verplanck as swing space

Like New Robertson (425) students  
Close Washington  
Like New Renovation Remaining K-4 Schools

### MERITS

1. Renovates the Cheney building for grade 5 and occupies underutilized spaces within the Bennet Academy
2. Allows for shared cafeteria, gymnasium, art and music space avoiding the duplication of these instructional spaces for the grade 5 school and enrollment
3. Addresses the Board of Education's high priority on facility improvements for Verplanck and Robertson School
4. Addresses needed critical facility improvements in all elementary schools with access to State reimbursement funding.
5. Provides all elementary school students in a 21<sup>st</sup> century learning environment
6. Maintains class sizes at 17-22 students per classroom
7. Ensures that Highland Park School is fully occupied
8. Eliminates operational costs (\$827,659) for Washington School
9. Eliminates capital improvement costs for Washington School (\$2,169,000)
10. Eliminates projected capital improvement costs for Robertson School (\$2,610,900)
11. Achieves racial balance in all schools and without any impending racial balance
12. Achieves equitable access for all students to modern, safe, healthy, and technologically equipped schools

### DRAWBACKS

1. Large estimated movement of students throughout the district to achieve racial balance.
2. Creates excess classroom space with 75.4% utilization rate of all available classrooms space.
3. Low combined reimbursement rate for all school projects of 51.4%.
4. Higher combined cost to the town after reimbursement ranking 6<sup>th</sup> highest cost of the 7 options
5. Higher combined total cost ranking 5<sup>th</sup> highest cost of the 7 options
6. Fifteen year construction timeline
7. Traffic congestion with two schools on the same site
8. Lack of outside recess and play space
9. Increase in annual cost for transportation to swing space school(s)
10. Some capital improvements in schools scheduled for renovation throughout the construction timeline.
11. Eliminates community baseball field

## Option #2 – Grade Configuration K-4, 5-6, 7-8, 9-12

### Option Summary

- Construct a grade 5 school at the Bennet Academy and Cheney building site.
- Construct a new elementary school at the current Verplanck School site for 325 - 350 students.
- Close Washington School and redistrict students to the new Verplanck School, Keeney School, and other schools contiguous to the Washington School zone.
- Complete a like-new renovation at Robertson School to accommodate 300-325 students.
- Complete the renovation and/or like-new renovation of all remaining K-4 elementary schools (except Highland Park School) in priority order based on Board's critical school facility assessment.
- Use the current Verplanck School and other schools as swing space during the renovation and/or like-new renovation of the remaining elementary schools.

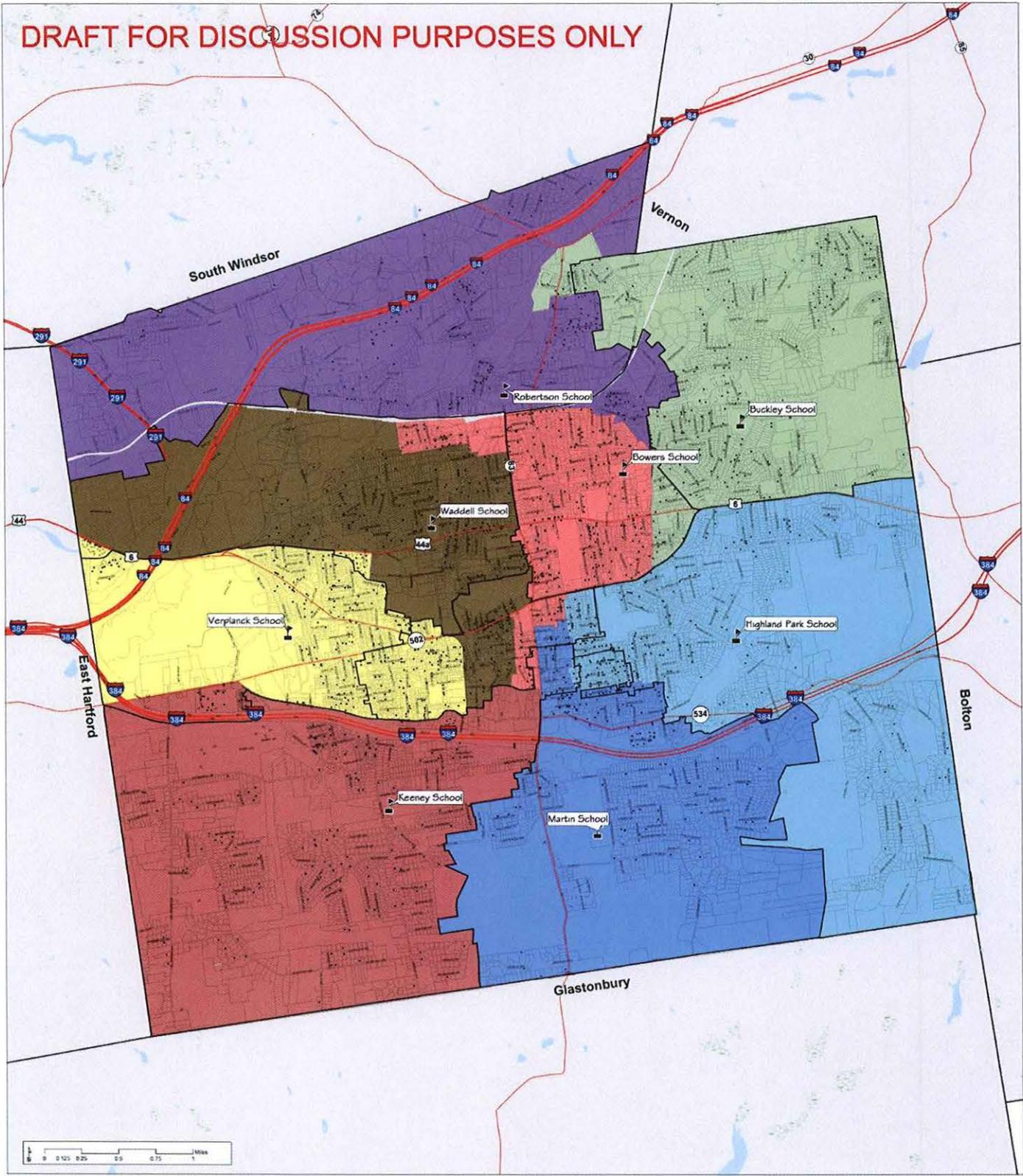
Option # 2							
Enrollment – Classroom Utilization – Racial Balance - (2013-14 Enrollments)							
School Facility	K-4 Enrollment	Full Size K-4 Classrooms	Targeted Capacity*	Percent Utilization	Percent Minority	Racial Imbalance	Percent Free and Reduced
Bowers	361	21	462	78.1%	57.3%	4.4%	58.4%
Buckley	304	22	484	62.8%	51.0%	10.8%	40.1%
Highland Park	316	15	320	98.8%	51.6%	10.2%	55.1%
Keeney	328	18	396	82.8%	62.5%	-0.7%	51.8%
Martin	234	15	330	70.9%	54.7%	7.1%	53.4%
Robertson	321	TBD	325	98.8%	76.0%	-14.2%	49.2%
Verplanck	357	TBD	350	102.0%	71.7%	-9.9%	72.3%
Waddell	311	19	418	74.4%	66.2%	-4.5%	68.2%
Washington							
<b>District K-4 Total</b>	<b>2,532</b>		<b>3,085</b>	<b>82.1%</b>	<b>61.8%</b>		<b>56.5%</b>

\* Capacity was set at 22 students per classroom except Highland Park, Verplanck, and Robertson which were set by construction targets

### Estimated Movement and Retention of K-4 Students

Post Redistricting → Current School ↓	Bowers		Buckley		Highland Park		Keeney		Martin		Robertson		Verplanck		Waddell		Washington	
	#	%	#	%	#	#	%	#	%	#	#	%	#	%	#	%	#	%
Bowers	271	74.9%	26	7.2%	2	0.6%	0	0.0%	4	1.1%	40	11.0%	7	1.9%	12	3.3%	0	0.0%
Buckley	3	1.2%	220	85.6%	6	2.3%	0	0.0%	3	1.2%	17	6.6%	5	1.9%	3	1.2%	0	0.0%
Highland Park	1	0.4%	4	1.8%	188	83.2%	1	0.4%	27	11.9%	2	0.9%	2	0.9%	1	0.4%	0	0.0%
Keeney	7	2.6%	1	0.4%	15	5.6%	200	74.1%	20	7.4%	1	0.4%	18	6.7%	6	2.2%	0	0.0%
Martin	5	2.2%	0	0.0%	66	28.4%	0	0.0%	151	65.1%	2	0.9%	5	2.2%	3	1.3%	0	0.0%
Robertson	3	2.0%	53	16.1%	2	0.6%	0	0.0%	9	2.7%	257	78.1%	4	1.2%	0	0.0%	0	0.0%
Verplanck	0	0.0%	0	0.0%	0	0.0%	123	37.6%	2	0.6%	0	0.0%	143	43.7%	9	2.8%	0	0.0%
Waddell	35	12.5%	0	0.0%	1	0.4%	2	0.7%	3	1.1%	1	0.4%	42	15.0%	196	70.0%	0	0.0%
Washington	36	11.9%	0	0.0%	36	11.9%	2	0.7%	15	5.0%	1	0.3%	131	43.2%	81	26.7%	0	0.0%
	361		304		316		328		234		321		357		311		0	

**DRAFT FOR DISCUSSION PURPOSES ONLY**



*Manchester Public Schools*



*Manchester Proposed Redistricting Options  
Option #2*

**Attendance Area**

- Bowers School District
- Buckley School District
- Highland Park School District
- Keeney School District
- Martin School District
- Robertson School District
- Verplanck School District
- Waddell School District
- Washington School District

Districts as Adopted 2012

**Student**

- K-4 Students

Date: Feb 2014

Source:  
GIS File: BaseMap  
Town of Manchester, CT GIS Department  
School Locations:  
School District Boundaries  
Town of Manchester, Board of Education

## OPTION #2 ANALYSIS

- ❖ 5th & 6th Grade Bennet Academy
- ❖ New Verplanck (350 Students)
- ❖ Remaining 5 Elementary Schools K-4 Configuration

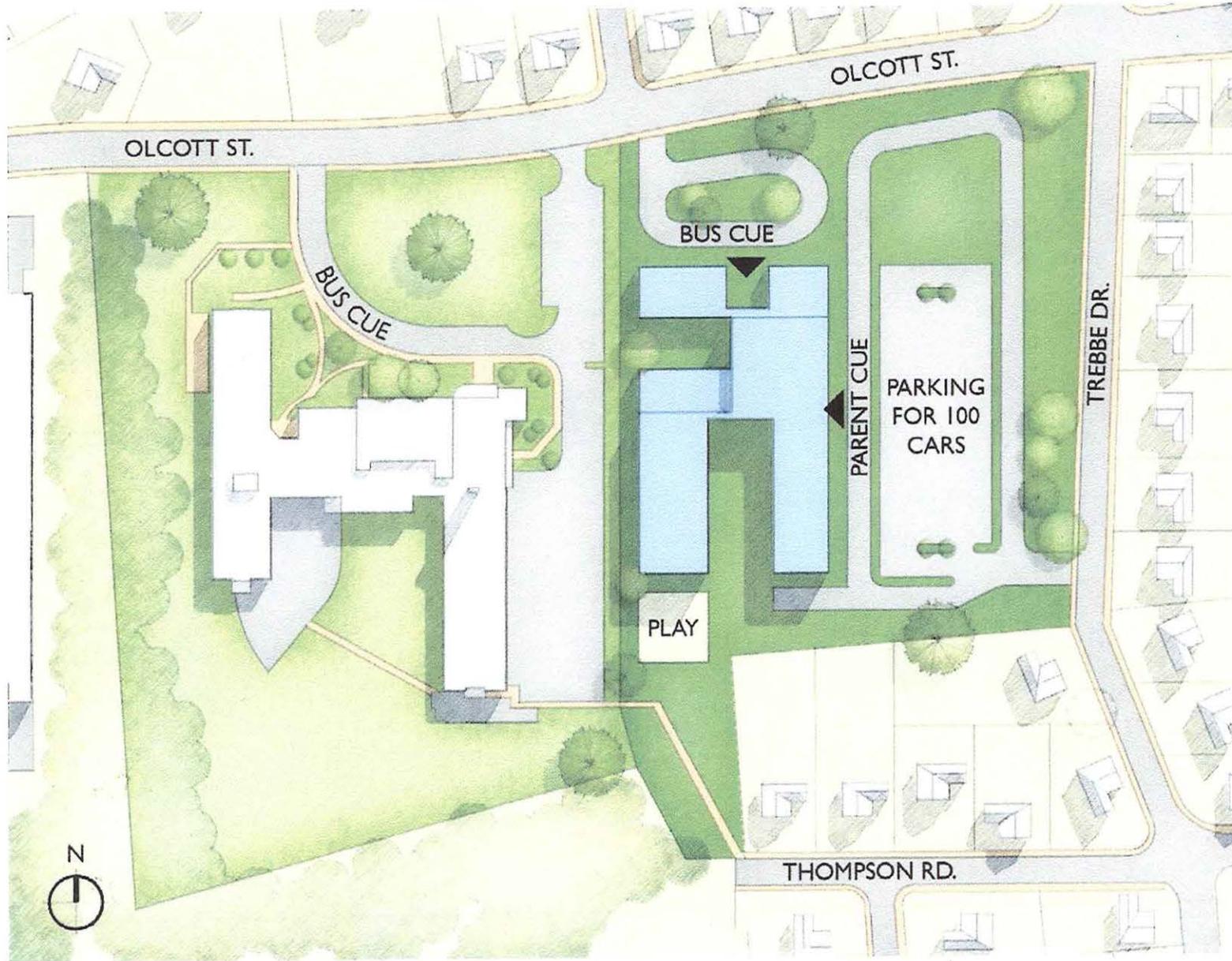
- ❖ Like New Robertson (325 Students)
- ❖ Close Washington

	Start Year	\$/sq. ft.	Actual Building Sq. Ft.	Projected 8 yr. Enrollment 2016-2023	Allowable S.F.	New Construction & Like New Renovation Cost	Projected Reimbursement	Town Cost Share	Effective Reimbursement Rate
District Wide K-4 Space			356,065	2,764	331,680	\$ 192,902,955	\$ 107,815,183	\$ 85,087,773	55.9%
Renovation Cost Per Sq. Ft.	2014	\$ 400	sq. ft.			\$ 24,112,869	Average Cost Per School (2014 dollars)		
Escalation Rate	3%								
New Verplanck	2017	\$ 548	47,547			\$ 26,036,047			
Robertson	2019	\$ 464	39,000			\$ 18,084,676			
Buckley	2021	\$ 492	57,357			\$ 28,216,750			
Keeney	2023	\$ 522	50,200			\$ 26,199,846			
Waddell	2025	\$ 554	66,363			\$ 36,744,765			
Bowers	2027	\$ 587	54,637			\$ 32,094,511			
Martin	2029	\$ 623	40,961			\$ 25,526,361			
<b>Total Elementary New Verplanck&amp; Like-New Renovation</b>				2,764	331,680	\$ 192,902,955	\$ 107,815,182.75	\$ 85,087,773	55.9%
<b>Bennet Middle School (5&amp;6) 2016</b>			~ 162,000	937	138,676	\$ 17,400,000	\$ 10,440,000.00	\$ 6,960,000	60.0%
<b>Total Combined Costs</b>			518,065	3,701	470,356	210,302,955	118,255,183	92,047,773	56.2%

**Notes - Option #2:**

- 1) Actual building sq. ft. is the sum of the 6 elementary schools to be renovated like new plus the proposed new Verplanck School
- 2) The projected K-4 peak is for all K-4 students 3,064 minus 300 students at Highland Park Elementary is based on peak 8 yr. enrollment data from 12/10/13 study by Peter M. Prowda.
- 3) Allowable sq.ft. is 120 per pupil for grades K-4 and 148 for grades 5 & 6 based on State Space Standards
- 4) Allowable sq.ft. has not been adjusted for pre-1950's construction due to incomplete data across the district (conservative approach).
- 5) Effective Reimbursement Rate is a proration based on ratio of allowable to actual building square footage of an assumed net 60% rate , 2014 SDE rate of 65.71 reduced based on past project experience.
- 6) The cost per square foot and projected escalation of these costs are for comparison purposes only.
- 7) The allowable sq.ft. for Bennet 5th/6th grade academy is based on peak 8 yr. enrollment data from 12/10/13 study by Peter M. Prowda.
- 8) The projected reimbursement rate for Bennet 5th/6th grade academy is based on approval of Special Legislation that will be required for grant funding.
- 9) The projected cost per square foot for New Verplanck is based on pro-rating for 350 students the estimated size and total project cost estimated by Tai Soo Kim Partners for 525 students.
- 10) Priority of renovations based on input from District Facilities Manager.

# Site – New Building



## Option 2

5<sup>th</sup> & 6<sup>th</sup> Grade Bennet Academy  
New Verplanck (350 students)  
Close Washington

Like New Robertson (325 students)  
Current Verplanck (swing space)  
Like New Renovation Remaining K-4 Schools

### MERITS

1. Renovates the Cheney building for grade 5 and occupies underutilized spaces within the Bennet Academy
2. Allows for shared cafeteria, gymnasium, art and music space avoiding the duplication of these instructional spaces for the grade 5 school and enrollment
3. Addresses the Board of Education's high priority on facility improvements for Verplanck, and Robertson schools
4. Addresses needed critical facility improvements in all elementary schools with access to State reimbursement funding.
5. Provides all elementary school students in a 21<sup>st</sup> century learning environment
6. Maintains class sizes at 17-22 students per classroom
7. Ensures that Highland Park School is fully occupied
8. Eliminates operational (\$827,659) and capital improvement costs (\$0000000) for Washington School
9. Eliminates projected capital improvement costs for Robertson
10. Achieves racial balance in all schools and without any impending racial balance
11. Achieves equitable access for all students to modern, safe, healthy, and technologically equipped schools
12. Current Verplanck School available as swing space
13. Classroom utilization rate of 82.1%
14. Combined reimbursement rate of 56.2%

### DRAWBACKS

1. Considerable movement of students throughout the district to achieve racial balance.
2. High combined cost to the town after reimbursement ranking 3<sup>rd</sup> highest cost of the 7 options
3. High combined total cost ranking 3<sup>rd</sup> highest of the 7 options
4. Fifteen year construction timeline
5. Traffic congestion with two schools on the same site
6. Lack of outside recess and play space
7. Increase in annual cost for transportation to swing space school(s)
8. Some capital improvements in schools scheduled for renovation throughout the construction timeline.
9. Eliminates community baseball field

## Option #3 – Grade Configuration K-4, 5-6, 7-8, 9-12

### Option Summary

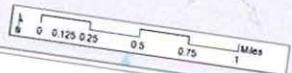
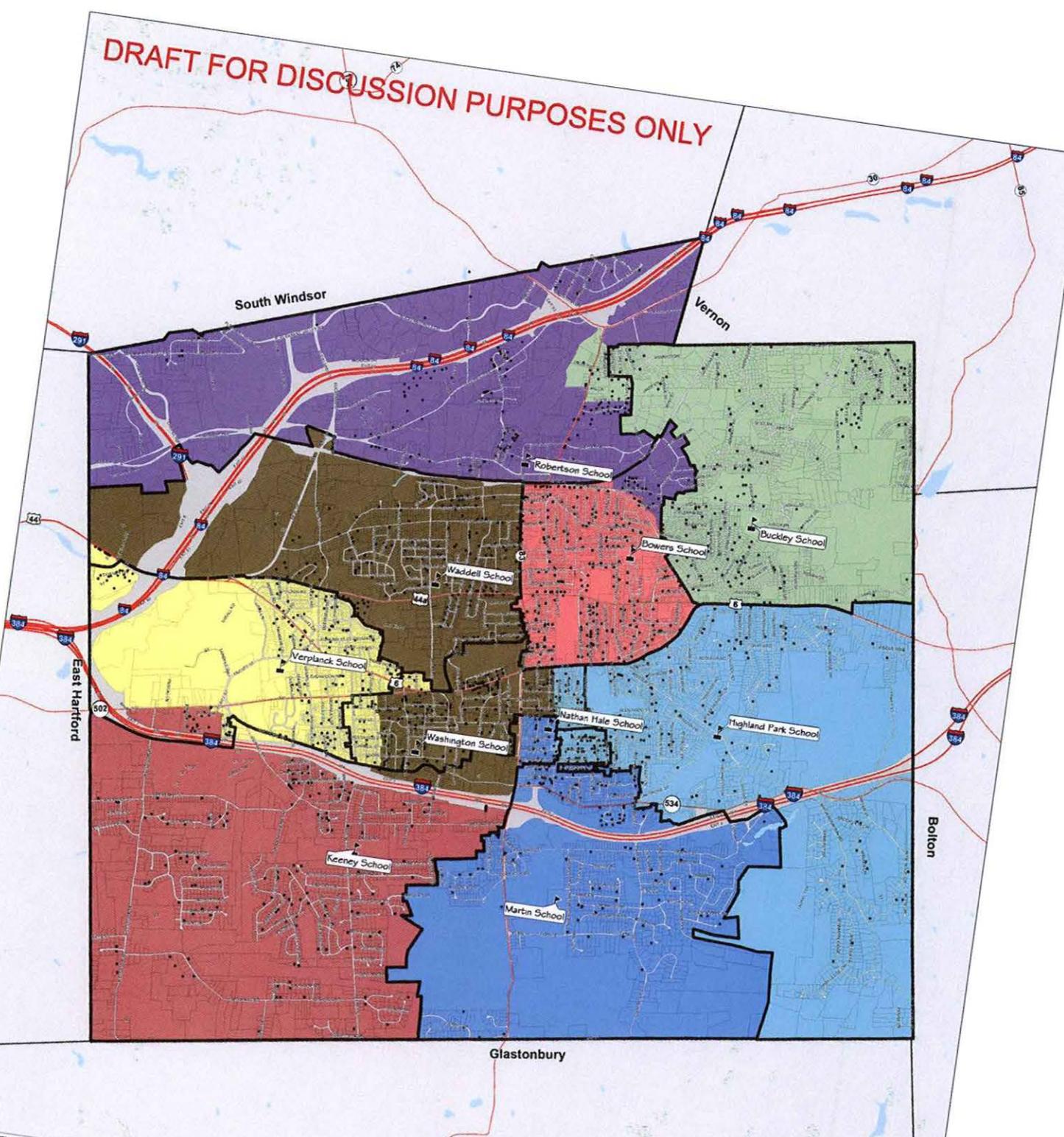
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- Complete a like-new renovation of Waddell School to accommodate 525 students.
- Close Washington School and redistrict students to the Verplanck School, Keeney School, Waddell and other schools contiguous to the Washington School zone.
- Complete the renovation and/or like-new renovation of all remaining K-4 elementary schools (except Highland Park School) in priority order based on Board’s critical school facility assessment.
- Use the Waddell School and other schools as swing space during the renovation and/or like-new renovation of the remaining elementary schools.

Option #3							
Enrollment – Classroom Utilization – Racial Balance - (2013-14 Enrollments)							
School Facility	K-4 Enrollment	Full Size K-4 Classrooms	Targeted Capacity*	Percent Utilization	Percent Minority	Racial Imbalance	Percent Free and Reduced
Bowers	316	21	462	68.4%	54.1%	7.7%	53.8%
Buckley	359	22	484	74.2%	59.1%	2.7%	49.9%
Highland Park	318	15	320	99.4%	51.3%	10.5%	54.7%
Keeney	260	18	396	65.7%	53.8%	7.9%	40.8%
Martin	216	15	330	65.5%	53.7%	8.1%	51.4%
Robertson	236	18	396	59.6%	73.3%	-11.5%	38.6%
Verplanck	296	19	418	70.8%	75.0%	-13.2%	71.3%
Waddell	531	TBD	525	101.1%	69.1%	-7.3%	73.1%
Washington							
<b>District K-4 Total</b>	<b>2,532</b>		<b>3,331</b>	<b>76.0%</b>	<b>61.8%</b>		<b>56.5%</b>

\* Capacity was set at 22 students per classroom except Highland Park and Waddell which were set by construction targets

Estimated Movement and Retention of K-4 Students																		
Post Redistricting →	Bowers		Buckley		Highland Park		Keeney		Martin		Robertson		Verplanck		Waddell		Washington	
Current School ↓	#	%	#	%	#	#	%	#	%	#	#	%	#	%	#	%	#	%
Bowers	299	82.6%	7	1.9%	2	0.6%	0	0.0%	4	1.1%	29	8.0%	6	1.7%	15	4.1%	0	0.0%
Buckley	3	1.2%	227	88.3%	6	2.3%	0	0.0%	3	1.2%	10	3.9%	3	1.2%	5	1.9%	0	0.0%
Highland Park	1	0.4%	6	2.7%	190	84.1%	0	0.0%	25	11.1%	0	0.0%	3	1.3%	1	0.4%	0	0.0%
Keeney	3	1.1%	1	0.4%	15	5.6%	196	72.6%	20	7.4%	1	0.4%	15	5.6%	17	6.3%	0	0.0%
Martin	5	2.2%	0	0.0%	66	28.4%	0	0.0%	150	64.7%	2	0.9%	4	1.7%	5	2.2%	0	0.0%
Robertson	2	2.0%	118	35.9%	2	0.6%	0	0.0%	9	2.7%	192	58.4%	2	0.6%	3	0.9%	0	0.0%
Verplanck	0	0.0%	0	0.0%	0	0.0%	60	18.3%	2	0.6%	0	0.0%	205	62.7%	10	3.1%	0	0.0%
Waddell	2	0.7%	0	0.0%	1	0.4%	2	0.7%	3	1.1%	1	0.4%	16	5.7%	255	91.1%	0	0.0%
Washington	1	0.3%	0	0.0%	36	11.9%	2	0.7%	0	0.0%	1	0.3%	42	13.9%	220	72.6%	0	0.0%
	316		359		318		260		216		236		296		531		0	

**DRAFT FOR DISCUSSION PURPOSES ONLY**



Manchester Public Schools



Manchester Proposed Redistricting Options  
Option # 3

- Attendance Area**
- Bowers School District
  - Buckley School District
  - Highland Park School District
  - Keeney School District
  - Martin School District
  - Robertson School District
  - Verplanck School District
  - Waddell School District
  - Districts as Adopted 2012

Date: February 2014

Source:  
Town of Manchester, CT GIS Department  
GIS Parcel Boundary  
Manchester, Board of Education  
School Locations  
School District Boundaries & Enrollment  
Database (04-2013)



## OPTION #3 ANALYSIS

- ❖ 5th & 6th Grade Bennet Academy
- ❖ Renovate Like New Remaining 5 Elementary Schools K-4 Config.

- ❖ Close Washington
- ❖ Like New Waddell (525 Students)

	Start Year	\$/sq. ft.	Actual Building Sq. Ft.	Projected 8 yr. Enrollment 2016-2023	Allowable S.F.	New Construction & Like New Renovation Cost	Projected Reimbursement	Town Cost Share	Effective Reimbursement Rate
District Wide K-4 Space			377,522	2,764	331,680	\$ 195,278,686	\$ 102,939,751	\$ 92,338,935	52.7%
Renovation Cost Per Sq. Ft.	2014	\$ 400	sq. ft.			\$ 24,409,836	Average Cost Per School (2014 dollars)		
Escalation Rate	3%								
Waddell	2016	\$ 491	62,185			\$ 30,525,181			
Robertson	2018	\$ 450	45,819			\$ 20,627,875			
Buckley	2020	\$ 478	57,357			\$ 27,394,903			
Waddell	2022	\$ 507	66,363			\$ 33,626,665			
Bowers	2024	\$ 538	54,637			\$ 29,371,024			
Martin	2026	\$ 570	40,961			\$ 23,360,237			
Keeney	2028	\$ 605	50,200			\$ 30,372,802			
<b>Total Elementary New Verplanck&amp; Like-New Renovation</b>				2,764	331,680	\$ 195,278,686	\$ 102,939,751.44	\$ 92,338,935	52.7%
<b>Bennet Middle School (5&amp;6) 2016</b>			~ 162,000	937	138,676	\$ 17,400,000	\$ 10,440,000.00	\$ 6,960,000	60.0%
<b>Total Combined Costs</b>			539,522	3,701	470,356	212,678,686	113,379,751	99,298,935	53.3%

**Notes - Option #3:**

- 1) Actual building sq. ft. is the sum of the 6 elementary schools to be renovated like new plus the proposed new Verplanck School
- 2) The projected K-4 peak is for all K-4 students 3,064 minus 300 students at Highland Park Elementary is based on peak 8 yr. enrollment data from 12/10/13 study by Peter M. Prowda.
- 3) Allowable sq.ft. is 120 per pupil for grades K-4 and 148 for grades 5 & 6 based on State Space Standards
- 4) Allowable sq.ft. has not been adjusted for pre-1950's construction due to incomplete data across the district (conservative approach).
- 5) Effective Reimbursement Rate is a proration based on the ratio of allowable to actual building square footage of an assumed net 60% rate , 2014 SDE rate of 65.71 reduced based on past project experience.
- 6) The cost per square foot and projected escalation of these costs are for comparison purposes only.
- 7) The allowable sq.ft. for Bennet 5th/6th grade academy is based on peak 8 yr. enrollment data from 12/10/13 study by Peter M. Prowda.
- 8) The projected reimbursement rate for Bennet 5th/6th grade academy is based on approval of Special Legislation that will be required for grant funding.
- 9) The projected cost per square foot for New Verplanck is based on \$500/s.f. in 2014 dollars escalated to 2017 dollars
- 10) Priority of renovations based on input from District Facilities Manager.

### Option 3

5<sup>th</sup> & 6<sup>th</sup> Grade Bennet Academy  
Close Washington

Like New Renovation Waddell (525 students)  
Like New Renovation Remaining K-4 Schools

#### MERITS

1. Renovates the Cheney building for grade 5 and occupies underutilized spaces within the Bennet Academy
2. Allows for shared cafeteria, gymnasium, art and music space avoiding the duplication of these instructional spaces for the grade 5 school and enrollment
3. Addresses the Board of Education's high priority on facility improvements for Verplanck, and Robertson schools
4. Addresses needed critical facility improvements in all elementary schools with access to State reimbursement funding.
5. Provides all elementary school students in a 21<sup>st</sup> century learning environment
6. Maintains class sizes at 17-22 students per classroom
7. Ensures that Highland Park School is fully occupied
8. Eliminates operational (\$827,659)
9. Eliminates capital improvement costs for Washington School (\$2,169,000)
10. Achieves racial balance in all schools and without any impending racial balance
11. Achieves equitable access for all students to modern, safe, healthy, and technologically equipped schools
12. Less movement of students to achieve racial balance

#### DRAWBACKS

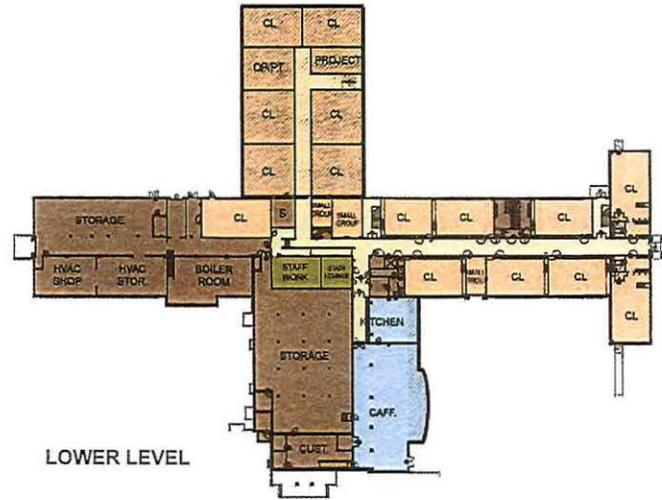
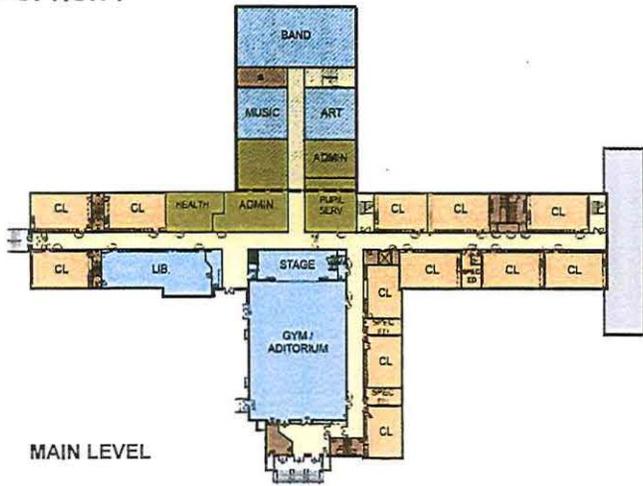
1. Requires relocating students during construction to available classroom space throughout the district
2. Creates excess classroom space with 76.0 % utilization rate of all available classrooms space
3. Low combined reimbursement rate for all school projects of 53.3%
4. Higher combined cost to the town after reimbursement ranking 4<sup>th</sup> highest of the 7 options
5. Higher combined total cost ranking 4<sup>th</sup> highest of the 7 options
6. Fourteen year construction timeline
7. Increase in annual cost for transportation to swing space school(s)
8. Some capital improvements in schools scheduled for renovation throughout the construction timeline.

**WADDELL ELEMENTRY SCHOOL  
EXPANSION STUDY - JANUARY, 2014**

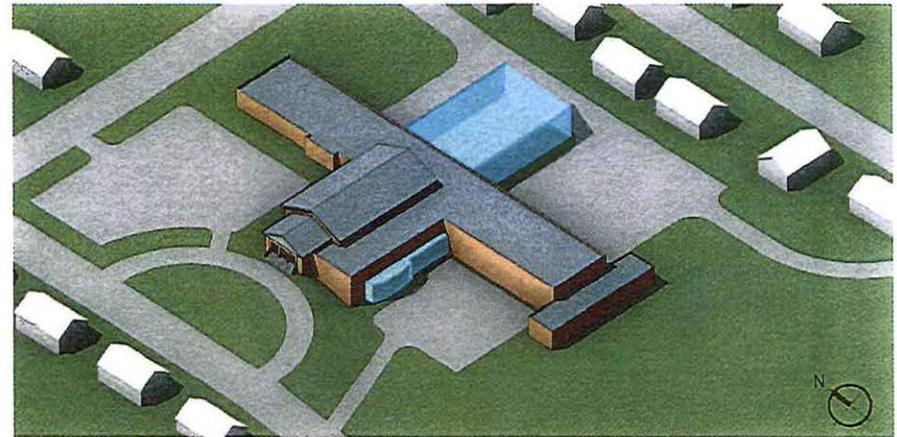


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11 - OPTION 1



- CLASSROOM
- CIRCULATION
- ADMINISTRATION
- UTILITY & SERVICE
- CORE
- DEMO



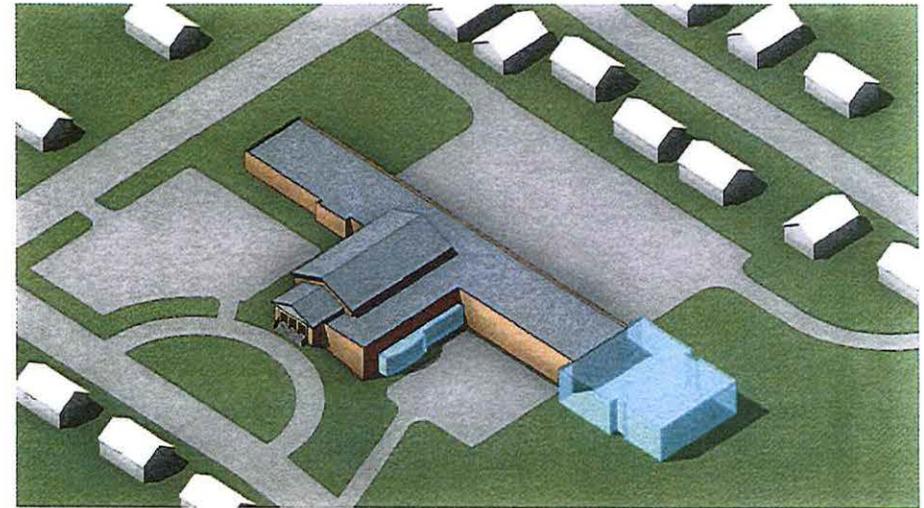
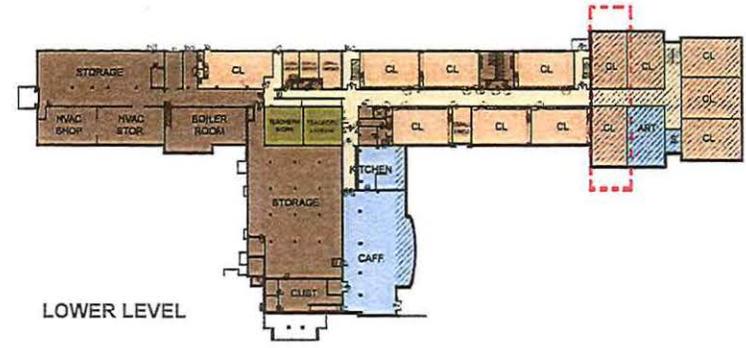
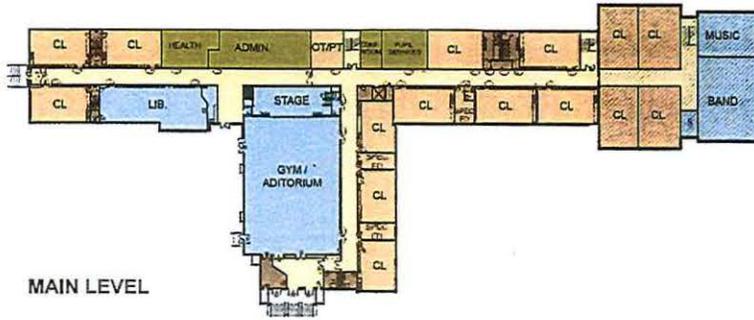
PROs

- Expanded parent cue
- Centralized "core space"

CON's

- Compromised admin sight lines

- CLASSROOM
- CIRCULATION
- ADMINISTRATION
- UTILITY & SERVICE
- CORE
- DEMO
- NEW ADDITION



**PRO's**

- Expanded parent cue
- Ample parking
- Admin has visibility of "cue"

**CON's**

- Demolish newest addition

<b>Classrooms</b>		
Enrollment Projection	530 Students	
# of Classrooms Needed	27 Classrooms @ 20 students	
<b>Program</b>	<b>EXISTING</b>	<b>OPTION 1 OR 2</b>
Classrooms	21 @ 915 SF = 19,200 SF	27 @ 930 SF = 25,110 SF
Special Education	10 @ 300 SF = 3,000 SF	3 @ 250 SF = 750 SF
Small Group	Included Above	3 @ 225 SF = 675 SF
OP/PT	Included Above	500 SF
Project classroom	Included Above	350 SF
Reading	300 SF	-
Art classroom	Included Above	975 SF
Music Classroom	Included Above	1,050 SF
Band/Orchestra/Chorus	-	2,500 SF
Administration	1,800 SF	2,500 SF
Pupil Services	-	900 SF
Health Center	-	775 SF
Staff Work	-	450 SF
Staff Lounge	500 SF	350 SF
Cafeteria	1,775 SF	2,400 SF
Library/Media Center	1,900 SF	1,900 SF
Gymnasium	6,500 SF	6,500 SF
District Storage	14,500 SF	14,500 SF
	<b>NET SF</b>	
	49,475 SF	62,185 SF

Program	OPTION 1		OPTION 2	
	Renovation	Alteration	Renovation	Alteration
New Construction	\$6,372,000		\$6,768,000	
Renovation	\$8,999,500		\$8,496,500	
BOE Storage Area Allowance	\$500,000		\$500,000	
HAZMAT Allowance	\$300,000		\$300,000	
Bldg Demolition Allowance	\$0		\$100,000	
Sitework Allowance	\$750,000		\$850,000	
Sub Total	<b>\$16,921,500</b>	<b>\$11,188,835</b>	<b>\$17,014,400</b>	<b>\$11,252,936</b>
Estimate Contingency	\$3,384,300	\$2,013,990	\$3,402,880	\$2,025,528
Escalation	\$1,827,522	\$1,188,254	\$1,837,555	\$1,195,062
Bond Costs	\$221,333	\$143,911	\$222,548	\$144,735
CM Fee	\$670,640	\$508,725	\$674,322	\$511,639
CM Reimbursables	\$1,327,999	\$863,465	\$1,335,290	\$868,412
<b>Total Construction Cost</b>	<b>\$24,353,294</b>	<b>\$15,907,180</b>	<b>\$24,486,995</b>	<b>\$15,998,312</b>
Soft Costs	\$6,088,324	\$3,976,795	\$6,121,749	\$3,999,578
<b>Total Project Costs</b>	<b>\$30,441,618</b>	<b>\$19,883,975</b>	<b>\$30,608,744</b>	<b>\$19,997,890</b>
Estimated Eligible Costs	\$28,419,537	\$13,660,585	\$28,578,307	\$13,867,534
Estimated Net State Reimbursement Percentage	62%	46%	62%	46%
<b>Estimated Net Cost to Manchester</b>	<b>\$11,400,528</b>	<b>\$10,731,383</b>	<b>\$11,461,278</b>	<b>\$10,706,642</b>

COST

Conceptual Budgets were developed using historical square foot unit prices for projects of similar size and scope. The Estimated State Reimbursement Percentage does not address excess square footage in the building currently utilized for district storage.

## Option #4 – Grade Configuration K-4, 5-6, 7-8, 9-12

### Option Summary

- Construct a grade 5 school building at the Bennet Academy and Cheney building site.
- Construct a new Verplanck School at the current Verplanck School site to accommodate 525 students.
- Close Washington School and redistrict students to the Verplanck School, Highland Park School, and other schools contiguous to the Washington School zone.
- Complete like-new renovation of Waddell School (525 students), move Waddell students to old Verplanck (if needed) during construction
- Close Robertson School redistrict students to Waddell School, Buckley School
- Complete the renovation of all remaining elementary schools except for HPS (in priority order according to capital improvement plan), and use Verplanck School and other schools as needed for swing space.

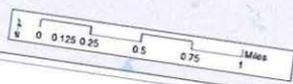
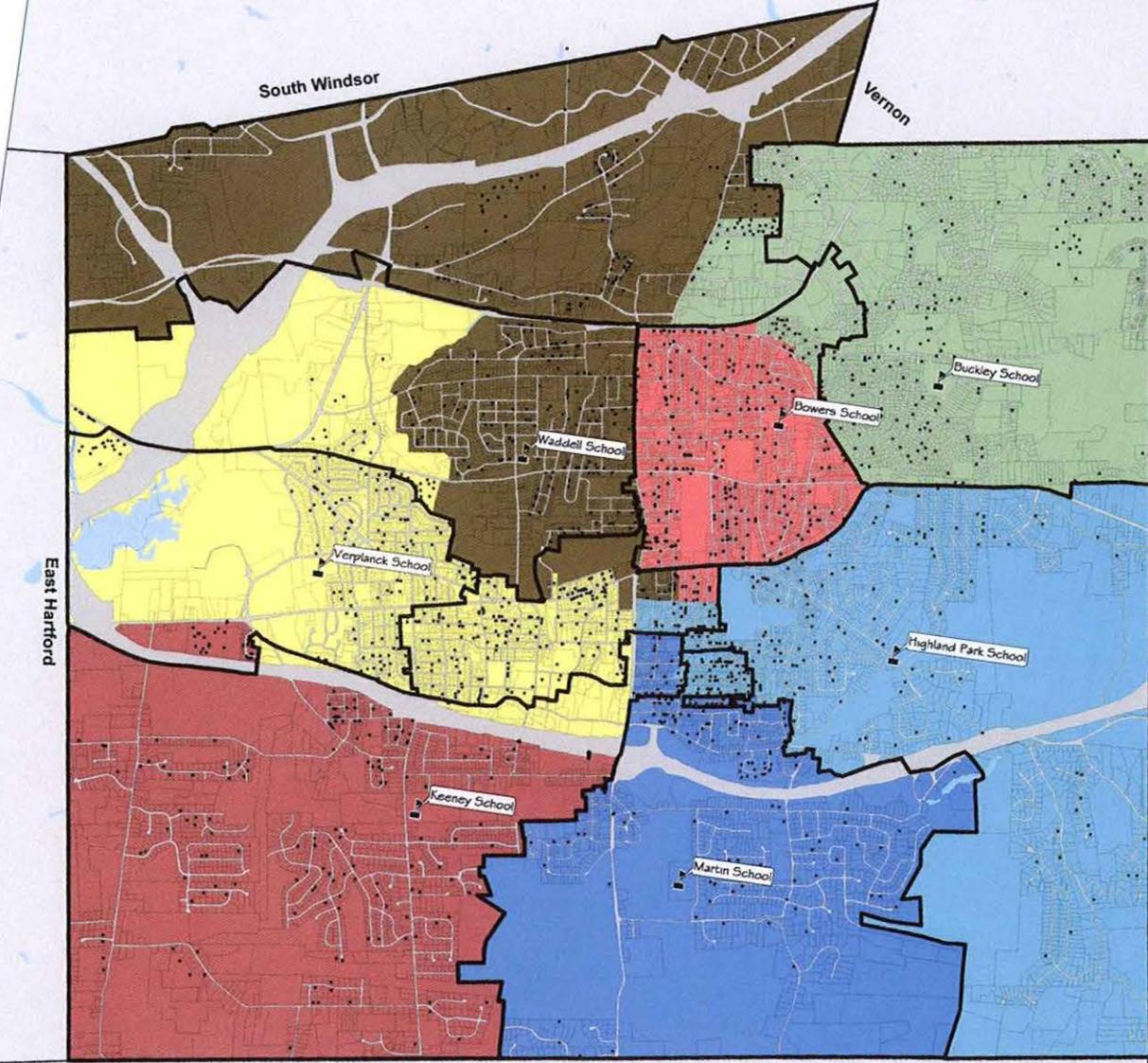
Option # 4							
Enrollment – Classroom Utilization – Racial Balance - (2013-14 Enrollments)							
School Facility	K-4 Enrollment	Full Size K-4 Classrooms	Targeted Capacity*	Percent Utilization	Percent Minority	Racial Imbalance	Percent Free and Reduced
Bowers	322	21	462	69.7%	54.3%	7.4%	54.0%
Buckley	313	22	484	64.7%	47.9%	13.8%	41.2%
Highland Park	322	15	320	100.6%	52.5%	9.3%	55.3%
Keeney	325	18	396	82.1%	62.8%	-1.0%	51.4%
Martin	216	15	330	65.5%	53.7%	8.1%	51.4%
Robertson							
Verplanck	513	TBD	525	97.7%	74.5%	-12.7%	74.5%
Waddell	521	TBD	525	99.2%	70.6%	-8.9%	55.5%
Washington							
<b>District K-4 Total</b>	<b>2,532</b>		<b>3,042</b>	<b>83.2%</b>	<b>61.8%</b>		<b>56.5%</b>

\* Capacity was set at 22 students per classroom except Highland Park, Verplanck, and Waddell which were set by construction targets

### Estimated Movement and Retention of K-4 Students

Post Redistricting → Current School ↓	Bowers		Buckley		Highland Park		Keeney		Martin		Robertson		Verplanck		Waddell		Washington	
	#	%	#	%	#	#	%	#	%	#	#	%	#	%	#	%	#	%
Bowers	296	81.8%	30	8.3%	2	0.6%	0	0.0%	4	1.1%	0	0.0%	16	4.4%	14	3.9%	0	0.0%
Buckley	3	1.2%	225	87.5%	6	2.3%	0	0.0%	3	1.2%	0	0.0%	8	3.1%	12	4.7%	0	0.0%
Highland Park	2	0.9%	2	0.9%	189	83.6%	1	0.4%	25	11.1%	0	0.0%	3	1.3%	4	1.8%	0	0.0%
Keeney	4	1.5%	0	0.0%	14	5.2%	197	73.0%	20	7.4%	0	0.0%	29	9.6%	4	1.5%	0	0.0%
Martin	5	2.2%	0	0.0%	67	28.9%	0	0.0%	150	64.7%	0	0.0%	6	2.6%	4	1.7%	0	0.0%
Robertson	1	5.0%	56	17.0%	2	0.6%	0	0.0%	9	2.7%	0	0.0%	4	1.2%	256	77.8%	0	0.0%
Verplanck	0	0.0%	0	0.0%	0	0.0%	123	37.6%	2	0.6%	0	0.0%	147	45.0%	5	1.5%	0	0.0%
Waddell	1	0.4%	0	0.0%	1	0.4%	2	0.7%	3	1.1%	0	0.0%	70	25.0%	203	72.5%	0	0.0%
Washington	10	3.3%	0	0.0%	41	13.5%	2	0.7%	0	0.0%	0	0.0%	230	75.9%	19	6.3%	0	0.0%
	322		313		322		325		216		0		513		521		0	

**DRAFT FOR DISCUSSION PURPOSES ONLY**



Manchester Public Schools



Manchester Proposed Redistricting Options  
Option #4

- Attendance Area**
- Bowers School District
  - Buckley School District
  - Highland Park School District
  - Keeney School District
  - Martin School District
  - Verplanck School District
  - Waddell School District

Districts as Adopted 2012

Date: February 2014

Source:  
Town of Manchester, CT GIS Department  
GIS Parcel BaseMap  
Manchester, Board of Education,  
School Locations,  
School District Boundaries & Enrollment  
Database (Oct. 2013)



## OPTION #4 ANALYSIS

- ❖ 5th & 6th Grade Bennet Academy
- ❖ New Verplanck (525 Students)
- ❖ Renovate Like New Remaining 5 Elementary Schools K-4 Config.

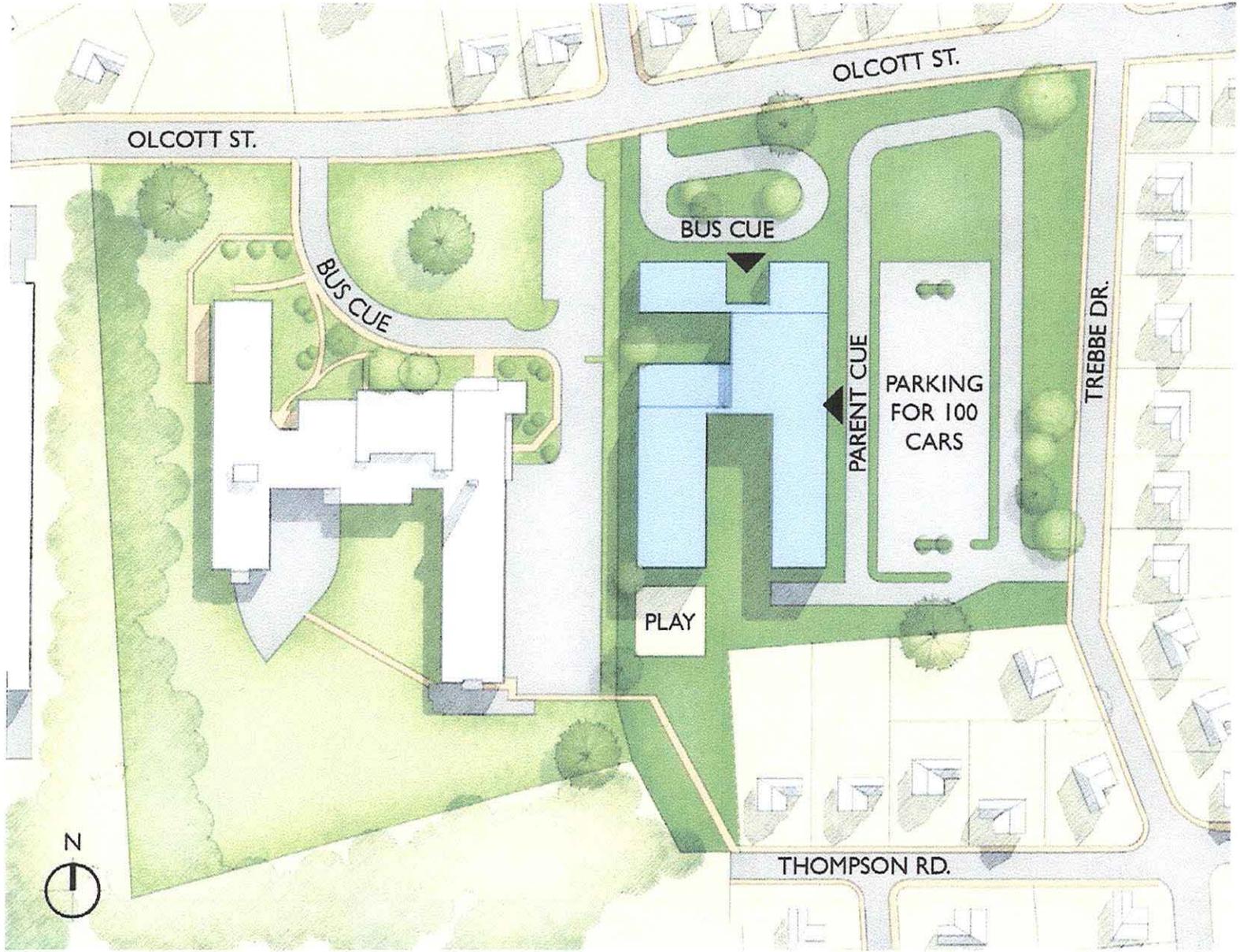
- ❖ Like New Waddell (525 Students)
- ❖ Close Washington & Robertson

	Start Year	\$/sq. ft.	Actual Building Sq. Ft.	Projected 8 yr. Enrollment 2016-2023	Allowable S.F.	New Construction & Like New Renovation Cost	Projected Reimbursement	Town Cost Share	Effective Reimbursement Rate
District Wide K-4 Space			337,340	2,764	331,680	\$ 179,283,850	\$ 105,765,460	\$ 73,518,389	59.0%
Renovation Cost Per Sq. Ft.	2014	\$ 400	sq. ft.			\$ 22,410,481	Average Cost Per School (2014 dollars)		
Escalation Rate		3%							
New Verplanck	2017	\$ 558	72,000			\$ 40,169,902			
Waddell	2019	\$ 491	62,185			\$ 30,525,181			
Buckley	2021	\$ 492	57,357			\$ 28,216,750			
Bowers	2023	\$ 522	54,637			\$ 28,515,557			
Keeney	2025	\$ 554	50,200			\$ 27,795,416			
Martin	2027	\$ 587	40,961			\$ 24,061,044			
						\$ -			
<b>Total Elementary New Verplanck&amp; Like-New Renovation</b>				2,764	331,680	\$ 179,283,850	\$ 105,765,460.19	\$ 73,518,389	59.0%
<b>Bennet Middle School (5&amp;6) 2016</b>			- 162,000	937	138,676	\$ 17,400,000	\$ 10,440,000.00	\$ 6,960,000	60.0%
<b>Total Combined Costs</b>			499,340	3,701	470,356	196,683,850	116,205,460	80,478,389	59.1%

**Notes - Option #4:**

- 1) Actual building sq. ft. is the sum of the 5 elementary schools to be renovated like new plus the proposed new and existing Verplanck Schools
- 2) The projected K-4 peak is for all K-4 students 3,064 minus 300 students at Highland Park Elementary is based on peak 8 yr. enrollment data from 12/10/13 study by Peter M. Prowda.
- 3) Allowable sq.ft. is 120 per pupil for grades K-4 and 148 for grades 5 & 6 based on State Space Standards
- 4) Allowable sq.ft. has not been adjusted for pre-1950's construction due to incomplete data across the district (conservative approach).
- 5) Effective Reimbursement Rate is a proration based on the ratio of allowable to actual building square footage of an assumed net 60% rate , 2014 SDE rate of 65.71 reduced based on past project experience.
- 6) The cost per square foot and projected escalation of these costs are for comparison purposes only.
- 7) The allowable sq.ft. for Bennet 5th/6th grade academy is based on peak 8 yr. enrollment data from 12/10/13 study by Peter M. Prowda.
- 8) The projected reimbursement rate for Bennet 5th/6th grade academy is based on approval of Special Legislation that will be required for grant funding.
- 9) The projected cost per square foot for New Verplanck is based on \$500/s.f. in 2014 dollars escalated to 2017 dollars
- 10) The cost for like-new Waddell for 525 students is based on the average of the cost estimates for the two options suggested by TSK, includes about 43% new addition construction.
- 11) Priority of renovations based on input from District Facilities Manager.

# Site – New Building



New Verplanck School and Current Verplanck School on the Same Site

Soo Kim Partners Architects





## Program – New Building

Classrooms	
Enrollment Projection	525 Students
# of Classrooms Needed	25 Classrooms @ 21 students
Program	New
Classrooms	25 @ 900 SF = 22,500 SF
Special Education	3 @ 600 SF = 1,800 SF
Small Group	3 @ 600 SF = 1,800 SF
OP/PT	750 SF
Project Classroom	1,200 SF
Art Classroom	1,250 SF
Music Classroom	900 SF
Band/Orchestra/Chorus	1,200 SF
Admin/Heath/Nurse	4,000 SF
Pupil Services	1,500 SF
Staff Work	400 SF
Staff Lounge	450 SF
Cafeteria	2,850 SF
Library/Media Center	3,300 SF
Gymnasium	6,000 SF
NET SF	49,900 SF
<b>GROSS SF</b>	<b>72,000 SF</b>

## Conceptual Budget – New Building

New School	
New Construction	\$23,040,000
Sitework Allowance	\$2,000,000
Sub Total	<b>\$25,040,000</b>
Estimate Contingency	\$5,008,000
Escalation	\$2,704,320
Bond Costs	\$327,523
CM Fee	\$661,597
CM Reimbursables	\$1,965,139
<b>Total Construction Cost</b>	<b>\$35,706,579</b>
Soft Costs	<b>\$8,926,645</b>
<b>Total Project Costs</b>	<b>\$44,633,224</b>
Estimated Eligible Costs	\$42,401,563
Estimated Net State Reimbursement Percentage	55%
<b>Estimated Net Cost to Manchester</b>	<b>\$21,312,364</b>

## Option 4

5<sup>th</sup> & 6<sup>th</sup> Grade Bennet Academy  
New Verplanck (525 students)  
Current Verplanck as swing space

Like New Waddell (525 students)  
Close Washington and Robertson  
Like New Renovation Remaining K-4 Schools

### MERITS

1. Renovates the Cheney building for grade 5 and occupies underutilized spaces within the Bennet Academy
2. Allows for shared cafeteria, gymnasium, art and music space avoiding the duplication of these instructional spaces for the grade 5 school and enrollment
3. Addresses the Board of Education's high priority on facility improvements for Verplanck School
4. Addresses needed critical facility improvements in all elementary schools with access to State reimbursement funding.
5. Provides all elementary school students in a 21<sup>st</sup> century learning environment
6. Maintains class sizes at 17-22 students per classroom
7. Ensures that Highland Park School is fully occupied
8. Eliminates operational costs (\$827,659)
9. Eliminates capital improvement costs for Washington School (\$2,169,000)
10. Eliminates operational costs for Robertson School (\$762,121)
11. Eliminates capital improvement costs for Robertson School (\$2,610,900)
12. Achieves racial balance in all schools and without any impending racial balance
13. Achieves equitable access for all students to modern, safe, healthy, and technologically equipped schools
14. The least student movement to achieve racial balance.
15. Efficient utilization of classroom space throughout the district.
16. High combined reimbursement rate for all elementary school projects (60.6%)
17. Lower combined costs for all school projects to the town
18. Lower total costs to the town after reimbursement
19. Current Verplanck and Robertson schools used as swing space during construction work of remaining K-4 schools

### DRAWBACKS

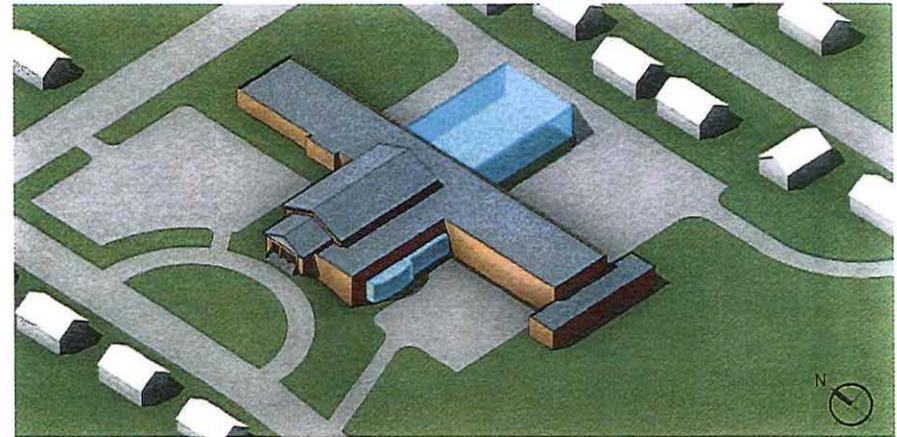
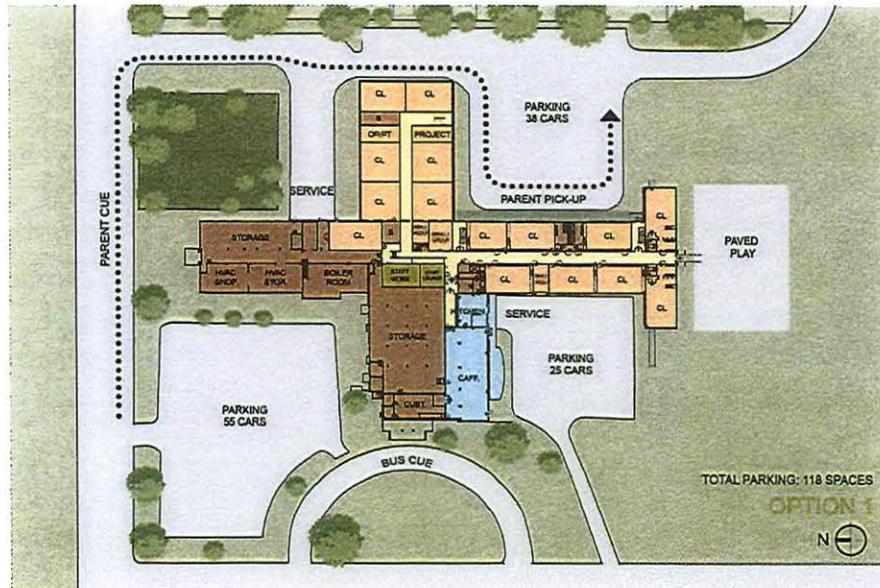
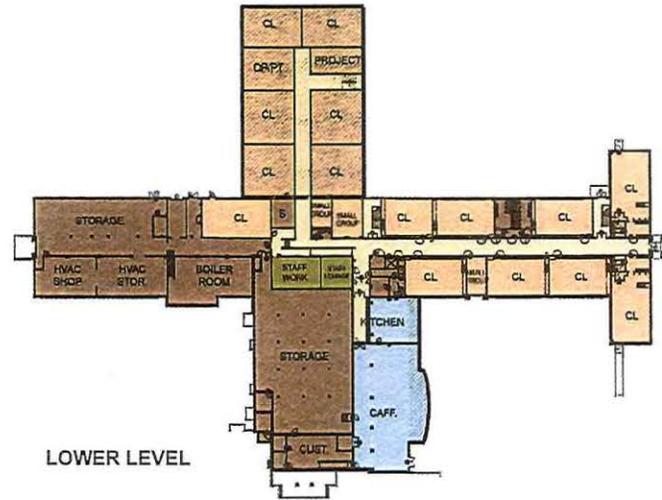
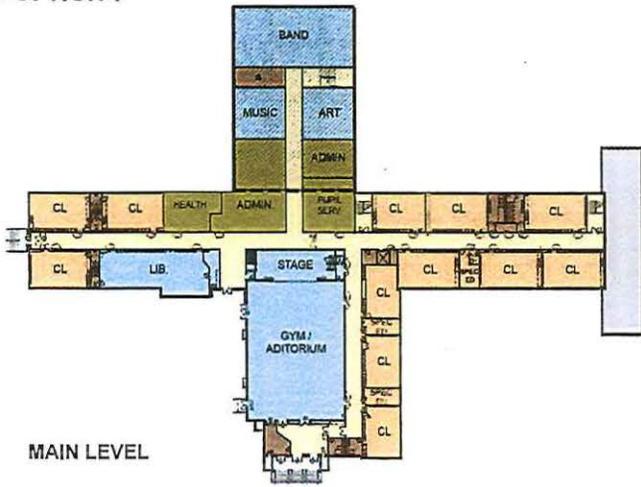
1. Increases bus transportation costs associated for the relocation of Robertson School students (\$291,632)
2. Thirteen year construction timeline
3. Increase in annual cost for transportation to swing space school(s)
4. Some capital improvements in schools scheduled for renovation throughout the construction timeline.
5. Traffic congestion with two schools on the same site
6. Lack of outside recess and play space
7. Eliminates community baseball field

**WADDELL ELEMENTRY SCHOOL  
EXPANSION STUDY - JANUARY, 2014**



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11 - OPTION 1



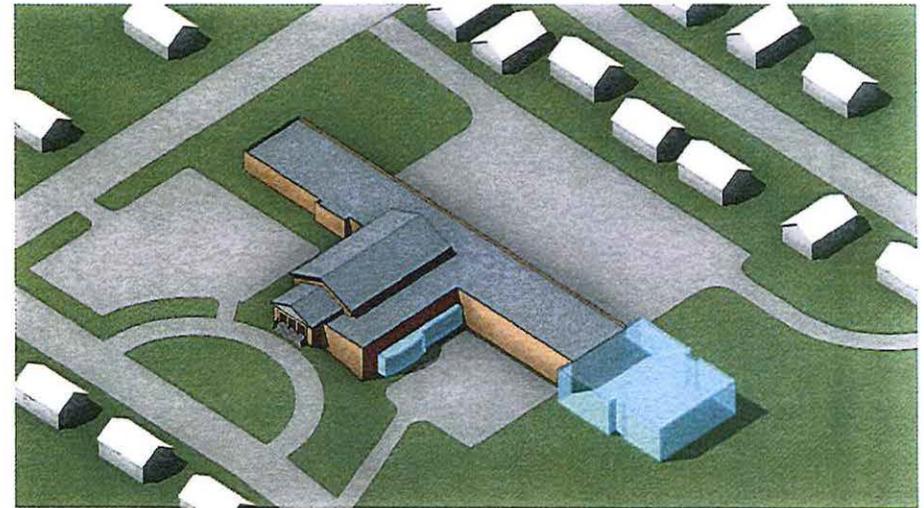
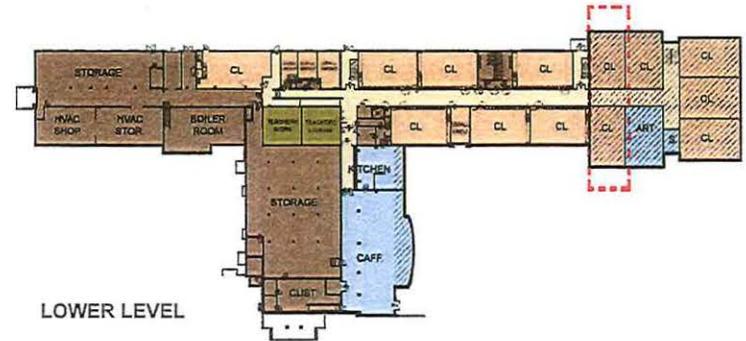
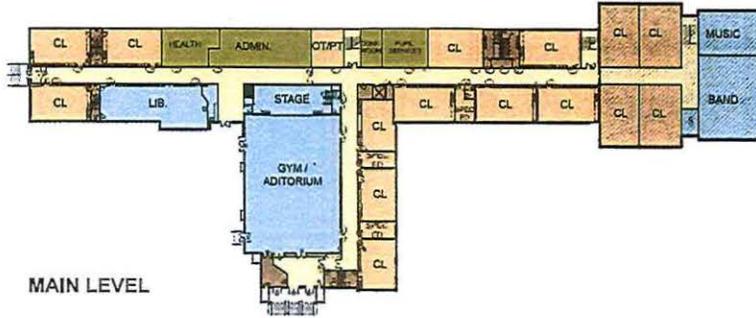
PROs

- Expanded parent cue
- Centralized "core space"

CON's

- Compromised admin sight lines

- CLASSROOM
- CIRCULATION
- ADMINISTRATION
- UTILITY & SERVICE
- CORE
- DEMO
- NEW ADDITION



**PRO's**

- Expanded parent cue
- Ample parking
- Admin has visibility of "cue"

**CON's**

- Demolish newest addition

Classrooms		
Enrollment Projection	530 Students	
# of Classrooms Needed	27 Classrooms @ 20 students	
Program	EXISTING	OPTION 1 OR 2
Classrooms	21 @ 915 SF = 19,200 SF	27 @ 930 SF = 25,110 SF
Special Education	10 @ 300 SF = 3,000 SF	3 @ 250 SF = 750 SF
Small Group	Included Above	3 @ 225 SF = 675 SF
OP/PT	Included Above	500 SF
Project classroom	Included Above	350 SF
Reading	300 SF	-
Art classroom	Included Above	975 SF
Music Classroom	Included Above	1,050 SF
Band/Orchestra/Chorus	-	2,500 SF
Administration	1,800 SF	2,500 SF
Pupil Services	-	900 SF
Health Center	-	775 SF
Staff Work	-	450 SF
Staff Lounge	500 SF	350 SF
Cafeteria	1,775 SF	2,400 SF
Library/Media Center	1,900 SF	1,900 SF
Gymnasium	6,500 SF	6,500 SF
District Storage	14,500 SF	14,500 SF
	<b>NET SF</b>	
	49,475 SF	62,185 SF

Program	OPTION 1		OPTION 2	
	Renovation	Alteration	Renovation	Alteration
New Construction	\$6,372,000		\$6,768,000	
Renovation	\$8,999,500		\$8,496,500	
BOE Storage Area Allowance	\$500,000		\$500,000	
HAZMAT Allowance	\$300,000		\$300,000	
Bldg Demolition Allowance	\$0		\$100,000	
Sitework Allowance	\$750,000		\$850,000	
Sub Total	<b>\$16,921,500</b>	<b>\$11,188,835</b>	<b>\$17,014,400</b>	<b>\$11,252,936</b>
Estimate Contingency	\$3,384,300	\$2,013,990	\$3,402,880	\$2,025,528
Escalation	\$1,827,522	\$1,188,254	\$1,837,555	\$1,195,062
Bond Costs	\$221,333	\$143,911	\$222,548	\$144,735
CM Fee	\$670,640	\$508,725	\$674,322	\$511,639
CM Reimbursables	\$1,327,999	\$863,465	\$1,335,290	\$868,412
<b>Total Construction Cost</b>	<b>\$24,353,294</b>	<b>\$15,907,180</b>	<b>\$24,486,995</b>	<b>\$15,998,312</b>
Soft Costs	\$6,088,324	\$3,976,795	\$6,121,749	\$3,999,578
<b>Total Project Costs</b>	<b>\$30,441,618</b>	<b>\$19,883,975</b>	<b>\$30,608,744</b>	<b>\$19,997,890</b>
Estimated Eligible Costs	\$28,419,537	\$13,660,585	\$28,578,307	\$13,867,534
Estimated Net State Reimbursement Percentage	62%	46%	62%	46%
<b>Estimated Net Cost to Manchester</b>	<b>\$11,400,528</b>	<b>\$10,731,383</b>	<b>\$11,461,278</b>	<b>\$10,706,642</b>

COST

Conceptual Budgets were developed using historical square foot unit prices for projects of similar size and scope. The Estimated State Reimbursement Percentage does not address excess square footage in the building currently utilized for district storage.

## Option #5 – Grade Configuration K-4, 5-6, 7-8, 9-12

### Option Summary

- Construct a grade 5 school building at the Bennet Academy and Cheney building site.
- Construct a like -new Verplanck School at the current Verplanck School site to accommodate 525 students.
- Close Washington School and redistrict students to the Verplanck School, Highland Park School, and other schools contiguous to the Washington School zone.
- Complete like-new renovation of Waddell School (525 students), move Waddell students to old Verplanck (if needed) during construction
- Close Robertson School redistrict students to Waddell School, Buckley School
- Complete the renovation of all remaining elementary schools except for HPS (in priority order according to capital improvement plan), and use Verplanck School and other schools as needed for swing space.

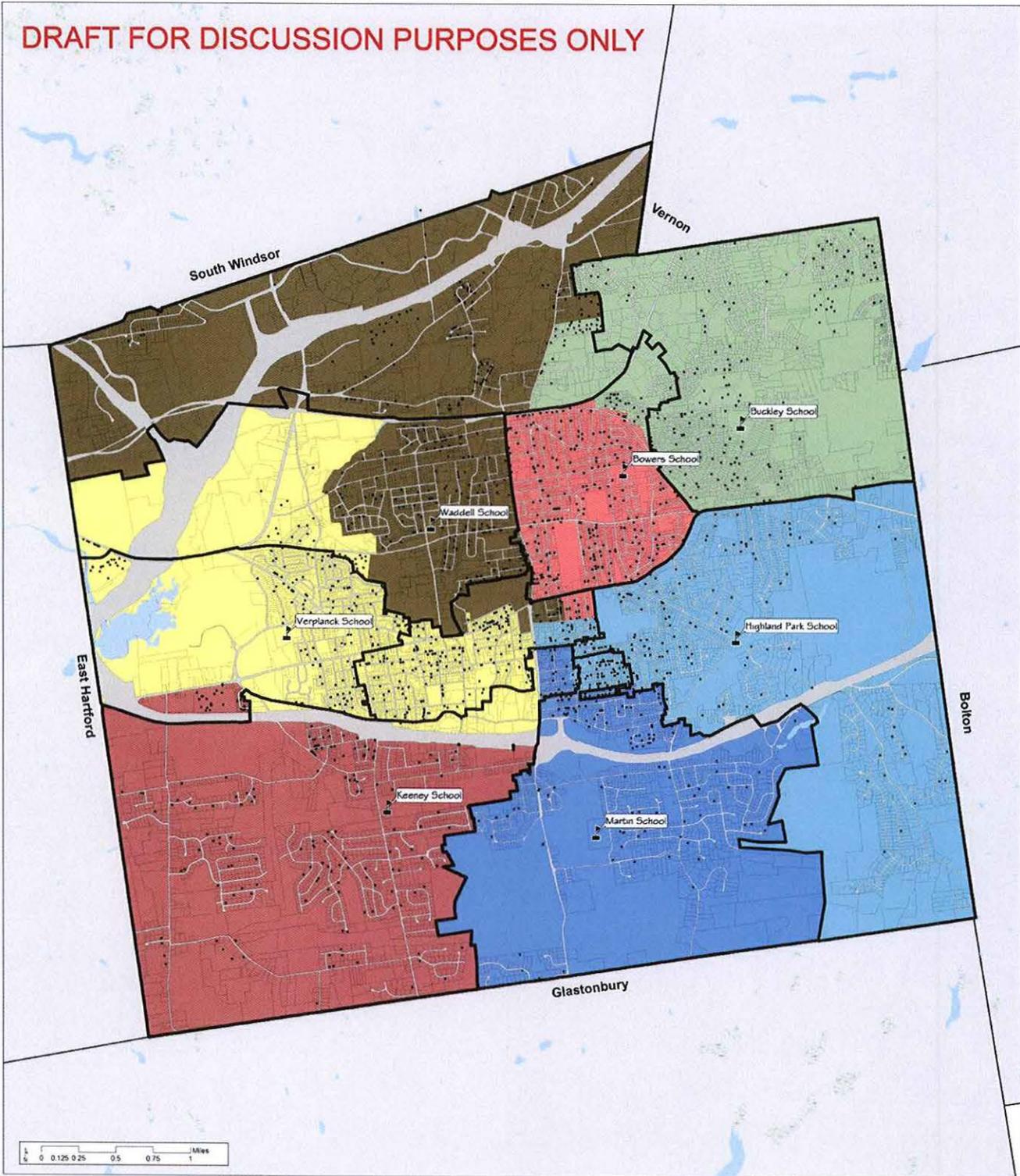
Option # 5							
Enrollment – Classroom Utilization – Racial Balance - (2013-14 Enrollments)							
School Facility	K-4 Enrollment	Full Size K-4 Classrooms	Targeted Capacity*	Percent Utilization	Percent Minority	Racial Imbalance	Percent Free and Reduced
Bowers	322	21	462	69.7%	54.3%	7.4%	54.0%
Buckley	313	22	484	64.7%	47.9%	13.8%	41.2%
Highland Park	322	15	320	100.6%	52.5%	9.3%	55.3%
Keeney	325	18	396	82.1%	62.8%	-1.0%	51.4%
Martin	216	15	330	65.5%	53.7%	8.1%	51.4%
Robertson							
Verplanck	513	TBD	525	97.7%	74.5%	-12.7%	74.5%
Waddell	521	TBD	525	99.2%	70.6%	-8.9%	55.5%
Washington							
<b>District K-4 Total</b>	<b>2,532</b>		<b>3,042</b>	<b>83.2%</b>	<b>61.8%</b>		<b>56.5%</b>

\* Capacity was set at 22 students per classroom except Highland Park, Verplanck, and Waddell which were set by construction targets

### Estimated Movement and Retention of K-4 Students

Post Redistricting → Current School ↓	Bowers		Buckley		Highland Park		Keeney		Martin		Robertson		Verplanck		Waddell		Washington	
	#	%	#	%	#	#	%	#	%	#	#	%	#	%	#	%	#	%
Bowers	296	81.8%	30	8.3%	2	0.6%	0	0.0%	4	1.1%	0	0.0%	16	4.4%	14	3.9%	0	0.0%
Buckley	3	1.2%	225	87.5%	6	2.3%	0	0.0%	3	1.2%	0	0.0%	8	3.1%	12	4.7%	0	0.0%
Highland Park	2	0.9%	2	0.9%	189	83.6%	1	0.4%	25	11.1%	0	0.0%	3	1.3%	4	1.8%	0	0.0%
Keeney	4	1.5%	0	0.0%	14	5.2%	197	73.0%	20	7.4%	0	0.0%	29	9.6%	4	1.5%	0	0.0%
Martin	5	2.2%	0	0.0%	67	28.9%	0	0.0%	150	64.7%	0	0.0%	6	2.6%	4	1.7%	0	0.0%
Robertson	1	5.0%	56	17.0%	2	0.6%	0	0.0%	9	2.7%	0	0.0%	4	1.2%	256	77.8%	0	0.0%
Verplanck	0	0.0%	0	0.0%	0	0.0%	123	37.6%	2	0.6%	0	0.0%	147	45.0%	5	1.5%	0	0.0%
Waddell	1	0.4%	0	0.0%	1	0.4%	2	0.7%	3	1.1%	0	0.0%	70	25.0%	203	72.5%	0	0.0%
Washington	10	3.3%	0	0.0%	41	13.5%	2	0.7%	0	0.0%	0	0.0%	230	75.9%	19	6.3%	0	0.0%
	322		313		322		325		216		0		513		521		0	

**DRAFT FOR DISCUSSION PURPOSES ONLY**



*Manchester Public Schools*



*Manchester Proposed Redistricting Options  
Option #5*

**Attendance Area**

- Bowers School District
- Buckley School District
- Highland Park School District
- Keeney School District
- Martin School District
- Verplanck School District
- Waddell School District

Districts as Adopted 2012

Date: February 2014

Source:  
Town of Manchester, CT GIS Department  
GIS Parcel Basemap

Manchester, State of Education  
School Locations  
School District Boundaries & Enrollment  
Database (Oct. 2013)



## OPTION #5 ANALYSIS

- ❖ 5th & 6th Grade Bennet Academy
- ❖ Like New Verplanck (525 Students)
- ❖ Remaining 4 Elementary Schools K-4 Configuration

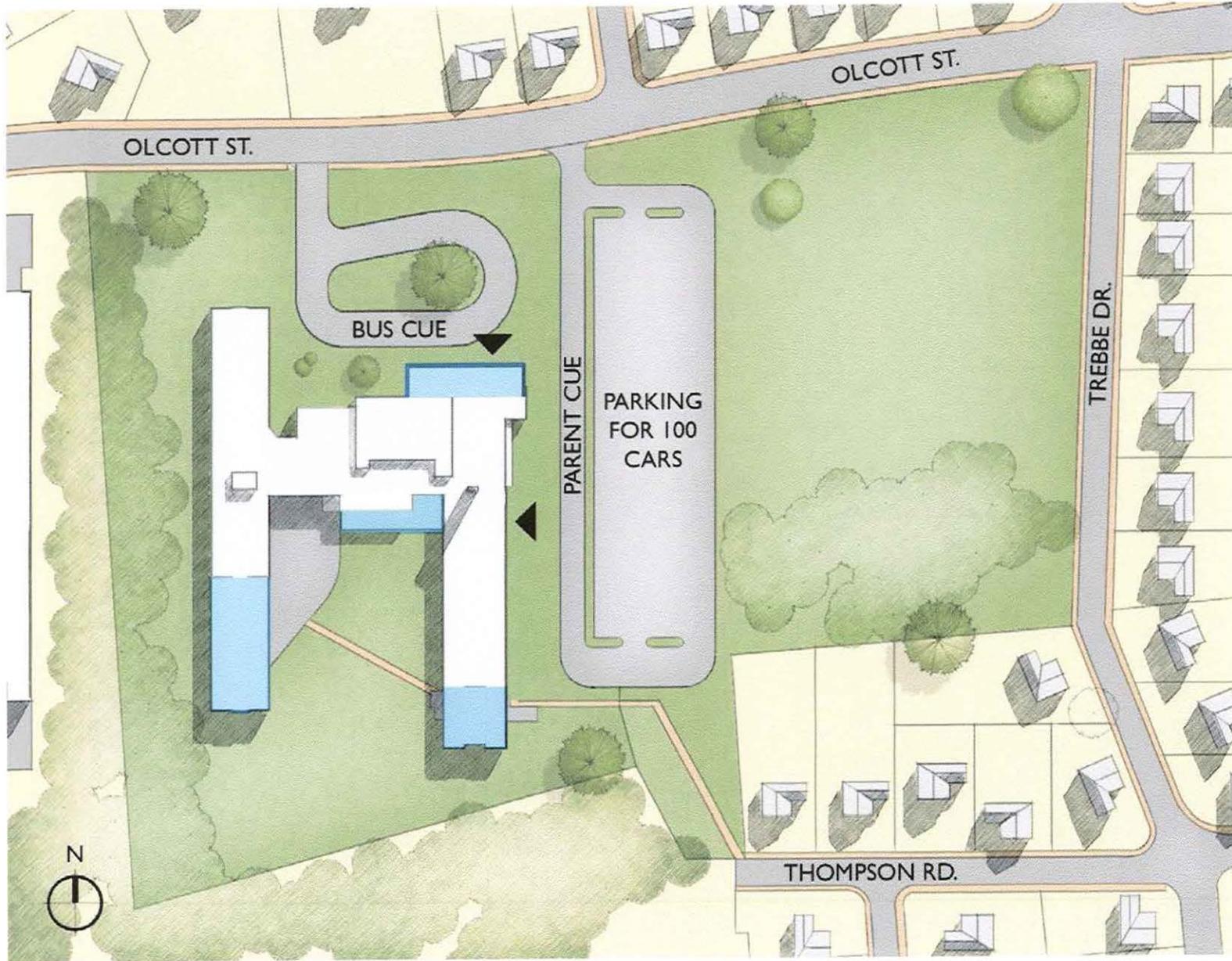
- ❖ Like New Waddell (525 Students)
- ❖ Close Washington & Robertson

	Start Year	\$/sq. ft.	Actual Building Sq. Ft.	Projected 8 yr. Enrollment 2016-2023	Allowable S.F.	New Construction & Like New Renovation Cost	Projected Reimbursement	Town Cost Share	Effective Reimbursement Rate
District Wide K-4 Space			328,340	2,764	331,680	\$ 166,650,668	\$ 101,007,542	\$ 65,643,127	60.6%
Renovation Cost Per Sq. Ft.	2014	\$ 400	sq. ft.			\$ 20,831,334	Average Cost Per School (2014 dollars)		
Escalation Rate		3%							
Like-New Verplanck	2017	\$ 437	63,000			\$ 27,536,720			
Waddell	2019	\$ 491	62,185			\$ 30,525,181			
Buckley	2021	\$ 492	57,357			\$ 28,216,750			
Bowers	2023	\$ 522	54,637			\$ 28,515,557			
Keeney	2025	\$ 554	50,200			\$ 27,795,416			
Martin	2027	\$ 587	40,961			\$ 24,061,044			
<b>Total Elementary New Verplanck&amp; Like-New Renovation</b>				2,764	331,680	\$ 166,650,668	\$ 101,007,541.62	\$ 65,643,127	60.6%
<b>Bennet Middle School (5&amp;6) 2016</b>			- 162,000	937	138,676	\$ 17,400,000	\$ 10,440,000.00	\$ 6,960,000	60.0%
<b>Total Combined Costs</b>			490,340	3,701	470,356	184,050,668	111,447,542	72,603,127	60.6%

**Notes - Option #5:**

- 1) Actual building sq. ft. is the sum of the 6 elementary schools to be renovated like new.
- 2) The projected K-4 peak is for all K-4 students 3,064 minus 300 students at Highland Park Elementary is based on peak 8 yr. enrollment data from 12/10/13 study by Peter M. Prowda.
- 3) Allowable sq.ft. is 120 per pupil for grades K-4 and 148 for grades 5 & 6 based on State Space Standards
- 4) Allowable sq.ft. has not been adjusted for pre-1950's construction due to incomplete data across the district (conservative approach).
- 5) Effective Reimbursement Rate is a proration based on the ratio of allowable to actual building square footage of an assumed net 60% rate , 2014 SDE rate of 65.71 reduced based on past project experience.
- 6) The cost per square foot and projected escalation of these costs are for comparison purposes only.
- 7) The allowable sq.ft. for Bennet 5th/6th grade academy is based on peak 8 yr. enrollment data from 12/10/13 study by Peter M. Prowda.
- 8) The projected reimbursement rate for Bennet 5th/6th grade academy is based on approval of Special Legislation that will be required for grant funding.
- 9) The cost for like-new Waddell for 525 students is based on the average of the cost estimates for the two options suggested by TSK, includes about 43% new addition construction.
- 10) Option 5 uses extra capacity from newly renovated larger Waddell School as swing space as an alternative to Option #4 which uses existing Verplanck as swing space.
- 11) Priority of renovations based on input from District Facilities Manager.

# Site – Renovation





## Program – Renovation

Classrooms		
Enrollment Projection	525 Students	
# of Classrooms Needed	25 Classrooms @ 21 students	
Program	Existing	Renovation
Classrooms	21 @ 860 SF = 18,200 SF	25 @ 940 SF = 23,500 SF
Special Education	4 @ 185 SF = 740 SF	3 @ 210 SF = 630 SF
Small Group	4 @ 225 SF = 900 SF	3 @ 580 SF = 1,740 SF
OT/PT	-	650 SF
Project Classroom	-	850 SF
Art Classroom	-	930 SF
Music Classroom	-	890 SF
Band/Orchestra/Chorus	-	915 SF
Admin/Heath/Nurse	1,600 SF	3,430 SF
Pupil Services	-	1,600 SF
Staff Work	170 SF	330 SF
Staff Lounge	250 SF	240 SF
Cafeteria	2,750 SF	3,600 SF
Library/Media Center	3,300 SF	3,160 SF
Gymnasium	6,250 SF	6,270 SF
NET SF	34,160 SF	48,735 SF
<b>GROSS SF</b>	51,100 SF	<b>70,000 SF</b>

## Conceptual Budget – Renovation

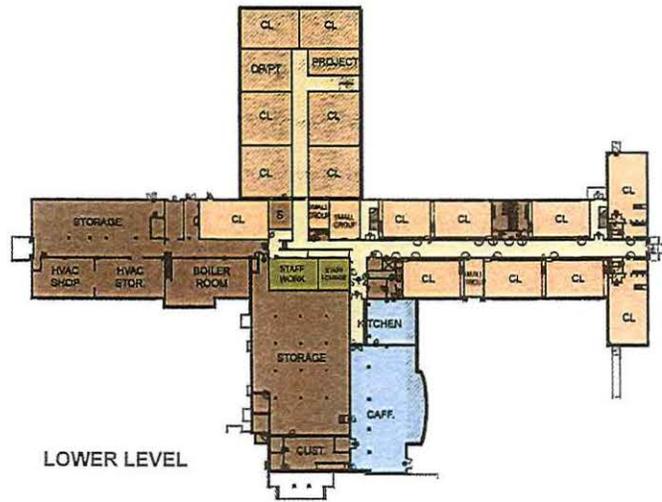
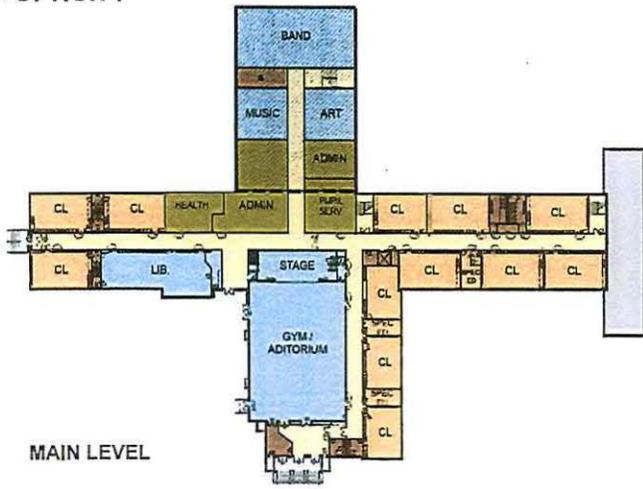
Renovation	\$8,573,000
New Construction	\$6,264,000
HAZMAT Allowance	\$300,000
Sitework Allowance	\$750,000
Sub Total	<b>\$15,887,000</b>
Estimate Contingency	\$3,177,400
Escalation	\$1,715,796
Bond Costs	\$207,802
CM Fee	\$629,640
CM Reimbursables	\$1,246,812
<b>Total Construction Cost</b>	<b>\$22,864,450</b>
<b>Soft Costs</b>	<b>\$5,716,112</b>
<b>Total Project Costs</b>	<b>\$28,580,562</b>
Estimated Eligible Costs	\$27,151,534
Estimated NetState Reimbursement Percentage	67%
<b>Estimated Net Cost to Manchester</b>	<b>\$10,389,034</b>

**WADDELL ELEMENTRY SCHOOL  
EXPANSION STUDY - JANUARY, 2014**

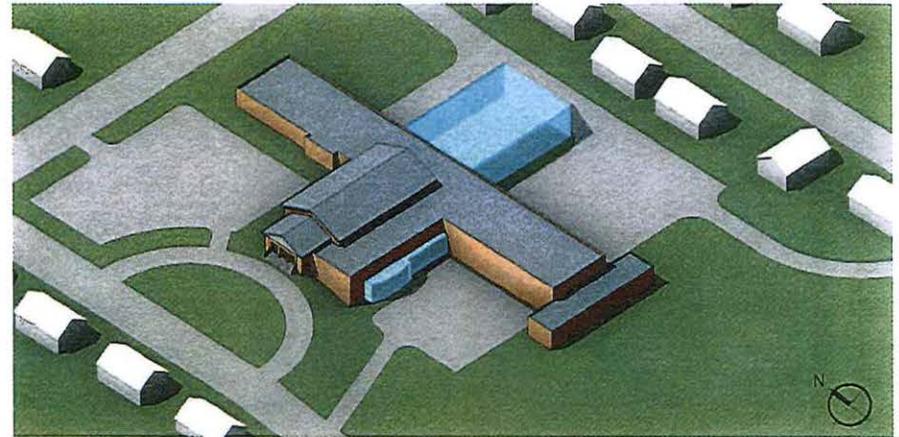


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11 - OPTION 1



- CLASSROOM
- CIRCULATION
- ADMINISTRATION
- UTILITY & SERVICE
- CORE
- DEMO



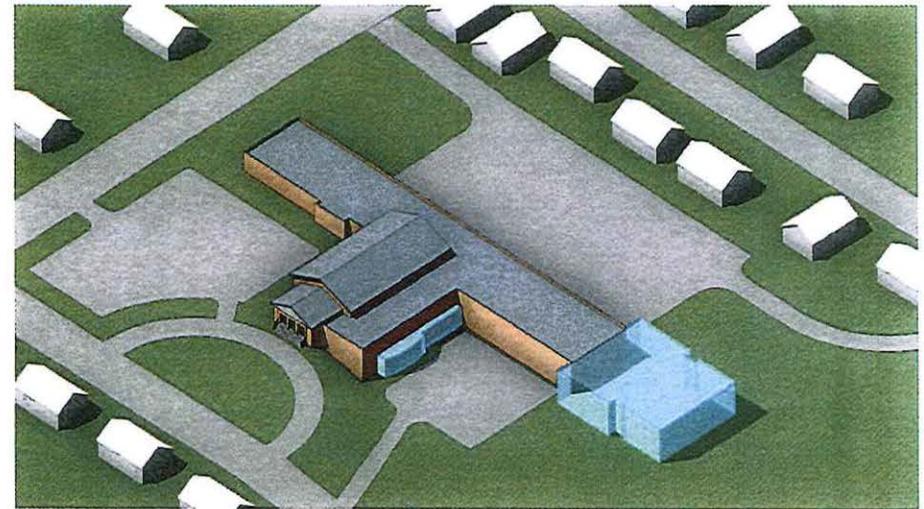
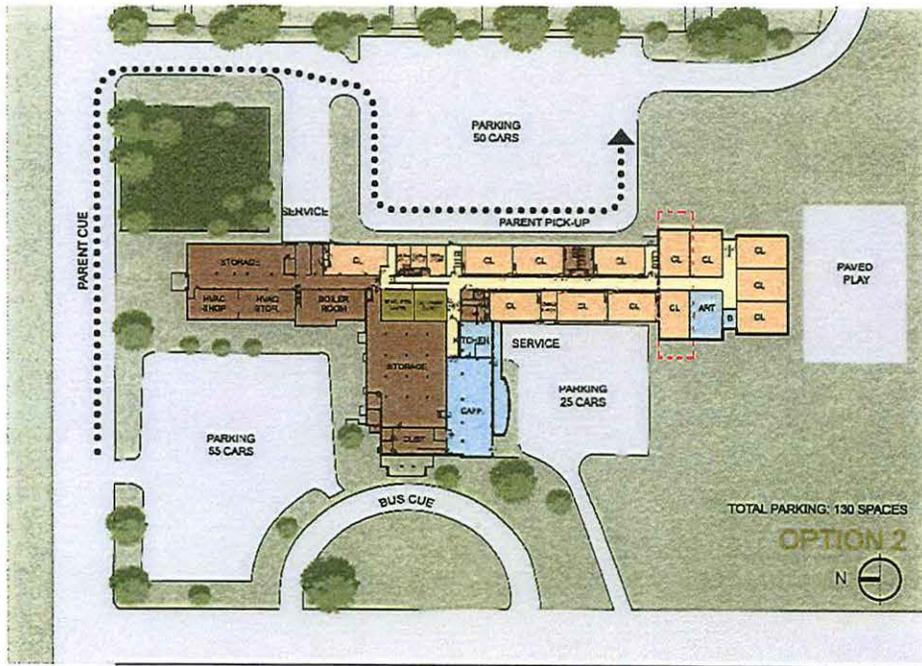
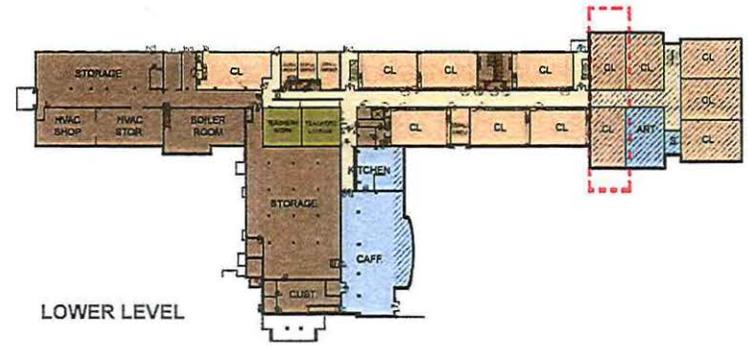
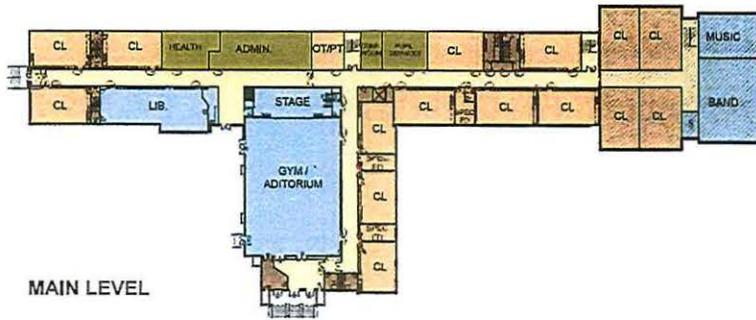
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- Centralized "core space"

CON's

- Compromised admin sight lines

- CLASSROOM
- CIRCULATION
- ADMINISTRATION
- UTILITY & SERVICE
- CORE
- DEMO
- NEW ADDITION



**PRO's**

- Expanded parent cue
- Ample parking
- Admin has visibility of "cue"

**CON's**

- Demolish newest addition

Classrooms		
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# of Classrooms Needed	27 Classrooms @ 20 students	
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Gymnasium	6,500 SF	6,500 SF
District Storage	14,500 SF	14,500 SF
	<b>NET SF</b>	
	49,175 SF	62,185 SF

Program	OPTION 1		OPTION 2	
	Renovation	Alteration	Renovation	Alteration
New Construction	\$6,372,000		\$6,768,000	
Renovation	\$8,999,500		\$8,496,500	
BOE Storage Area Allowance	\$500,000		\$500,000	
HAZMAT Allowance	\$300,000		\$300,000	
Bldg Demolition Allowance	\$0		\$100,000	
Sitework Allowance	\$750,000		\$850,000	
<b>Sub Total</b>	<b>\$16,921,500</b>	<b>\$11,188,835</b>	<b>\$17,014,400</b>	<b>\$11,252,936</b>
Estimate Contingency	\$3,384,300	\$2,013,990	\$3,402,880	\$2,025,528
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<b>Estimated Net Cost to Manchester</b>	<b>\$11,400,528</b>	<b>\$10,731,383</b>	<b>\$11,461,278</b>	<b>\$10,706,642</b>

COST

Conceptual Budgets were developed using historical square foot unit prices for projects of similar size and scope. The Estimated State Reimbursement Percentage does not address excess square footage in the building currently utilized for district storage.

## Option 5

5<sup>th</sup> & 6<sup>th</sup> Grade Bennet Academy  
Like New Verplanck (525 students)  
Like New Renovation Remaining K-4 Schools

Like New Waddell (525 students)  
Close Washington and Robertson  
Current Verplanck and Robertson as swing space

### MERITS

1. Renovates the Cheney building for grade 5 and occupies underutilized spaces within the Bennet Academy
2. Allows for shared cafeteria, gymnasium, art and music space avoiding the duplication of these instructional spaces for the grade 5 school and enrollment
3. Addresses the Board of Education's high priority on facility improvements for Verplanck School
4. Addresses needed critical facility improvements in all elementary schools with access to State reimbursement funding.
5. Provides all elementary school students in a 21<sup>st</sup> century learning environment
6. Maintains class sizes at 17-22 students per classroom
7. Ensures that Highland Park School is fully occupied
8. Eliminates operational costs (\$827,659)
9. Eliminates capital improvement costs for Washington School (\$2,169,000)
10. Eliminates operational costs for Robertson School (\$762,121)
11. Eliminates capital improvement costs for Robertson School (\$2,610,900)
12. Achieves racial balance in all schools and without any impending racial balance
13. Achieves equitable access for all students to modern, safe, healthy, and technologically equipped schools
14. The least student movement to achieve racial balance.
15. Efficient utilization of classroom space throughout the district (83.2%)
16. High combined reimbursement rate for all elementary school projects (60.6%)
17. Lowest combined costs to the town after reimbursement for all school projects
18. Lowest combined total cost for all school projects
19. Current Verplanck School and Robertson school available as swing space during construction work in all K-4 schools

### DRAWBACKS

1. Increases bus transportation costs associated for the relocation of Robertson School students (\$291,632)
2. Thirteen year construction timeline
3. Increase in annual cost for transportation to swing space school(s)
4. Some capital improvements in schools scheduled for renovation throughout the construction timeline.
5. Eliminates community baseball field during the construction of like-new Verplanck School

## Option #6 – Grade Configuration K-4, 5-6, 7-8, 9-12

### Option Summary

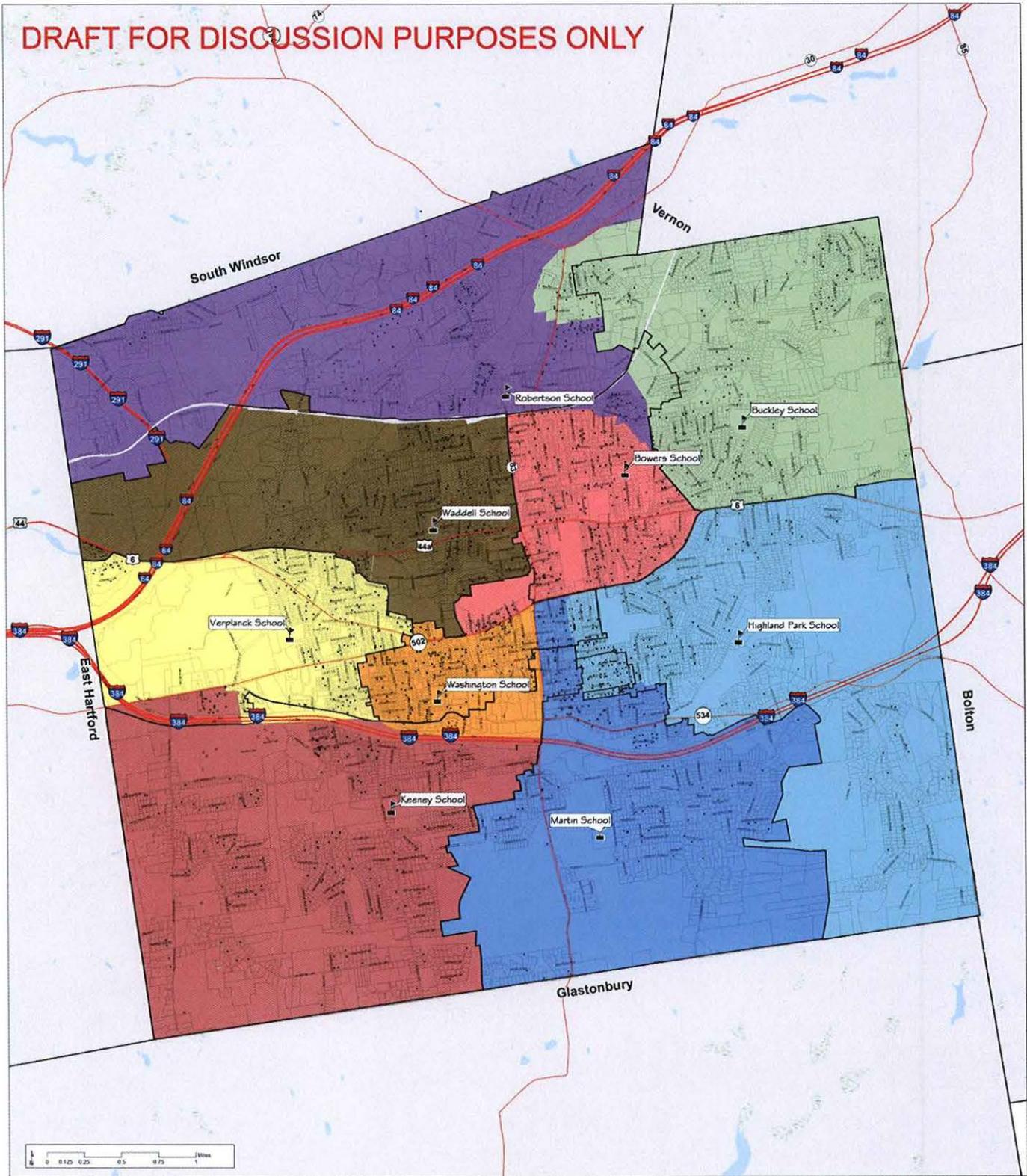
- Construct a grade 5 school building at the Bennet Academy and Cheney building site.
- Complete renovations and/or like new renovation of all remaining elementary school except for HPS (in priority order according to the capital improvement plan.
- Determine available swing space during renovation of elementary schools.

Option # 6							
Enrollment – Classroom Utilization – Racial Balance - (2013-14 Enrollments)							
School Facility	K-4 Enrollment	Full Size K-4 Classrooms	Targeted Capacity*	Percent Utilization	Percent Minority	Racial Imbalance	Percent Free and Reduced
Bowers	348	21	462	75.3%	57.2%	4.4%	57.5%
Buckley	301	23**	360	83.6%	54.2%	7.4%	40.9%
Highland Park	320	15	320	100.0%	50.6%	10.9%	54.4%
Keeney	260	18	396	65.7%	53.8%	7.7%	40.8%
Martin	250	15	330	75.8%	56.4%	5.2%	56.8%
Robertson	300	20	440	68.2%	75.3%	-13.8%	49.7%
Verplanck	240	18	396	60.6%	73.3%	-11.8%	70.4%
Waddell	270	19	418	64.6%	61.9%	-0.3%	61.5%
Washington	243	17	374	65.0%	76.1%	-14.6%	82.7%
<b>District K-4 Total</b>	<b>2,532</b>		<b>3,496</b>	<b>72.4%</b>	<b>61.6%</b>		<b>56.5%</b>

\* Capacity was set at 22 students per classroom except Highland Park which were set by construction targets  
 \*\* 7 Classrooms were held at Buckley for PreK

Post Redistricting → Current School ↓	Bowers		Buckley		Highland Park		Keeney		Martin		Robertson		Verplanck		Waddell		Washington	
	#	%	#	%	#	#	%	#	%	#	#	%	#	%	#	%	#	%
Bowers	302	83.4%	3	0.8%	4	1.1%	0	0.0%	2	0.6%	39	10.8%	3	0.8%	4	1.1%	5	1.4%
Buckley	4	1.6%	222	86.4%	7	2.7%	0	0.0%	2	0.8%	15	5.8%	3	1.2%	0	0.0%	4	1.6%
Highland Park	1	0.4%	4	1.8%	196	86.7%	0	0.0%	19	8.4%	2	0.9%	3	1.3%	0	0.0%	1	0.4%
Keeney	5	1.9%	1	0.4%	5	1.9%	196	72.6%	32	11.9%	1	0.4%	15	5.6%	1	0.4%	12	4.4%
Martin	5	2.2%	0	0.0%	65	28.0%	0	0.0%	152	65.5%	2	0.9%	3	1.3%	3	1.3%	2	0.9%
Robertson	2	2.0%	71	21.6%	6	1.8%	0	0.0%	6	1.8%	239	72.6%	2	0.6%	0	0.0%	2	0.6%
Verplanck	6	1.8%	0	0.0%	0	0.0%	60	18.3%	2	0.6%	0	0.0%	204	62.4%	2	0.6%	3	0.9%
Waddell	2	0.7%	0	0.0%	1	0.4%	2	0.7%	3	1.1%	1	0.4%	6	2.1%	260	92.9%	5	1.8%
Washington	21	6.9%	0	0.0%	36	11.9%	2	0.7%	32	10.6%	1	0.3%	1	0.3%	0	0.0%	209	69.0%
	348		301		320		260		250		300		240		270		243	

**DRAFT FOR DISCUSSION PURPOSES ONLY**



*Manchester Public Schools*



*Manchester Proposed Redistricting Options  
Option #6*

**Attendance Area**

- Bowers School District
- Buckley School District
- Highland Park School District
- Keeney School District
- Martin School District
- Robertson School District
- Verplanck School District
- Waddell School District
- Washington School District

Districts as Adopted 2012

**Student**

- K-4 Students

Date: Feb 2014

Source:  
GIS Data: BaseMap  
Town of Manchester, CT GIS Department  
School Locations:  
School District Boundaries  
Town of Manchester, Board of Education

## OPTION #6 ANALYSIS

### ❖ 5th & 6th Grade Bennet Academy

### ❖ Remaining 8 Elementary Schools K-4 Configuration

	Start Year	\$/sq. ft.	Actual Building Sq. Ft.	Projected 8 yr. Enrollment 2016-2023	Allowable S.F.	New Construction & Like New Renovation Cost	Projected Reimbursement	Town Cost Share	Effective Reimbursement Rate
District Wide K-4 Space			430,631	2,764	331,680	\$ 232,488,671	\$ 107,440,257	\$ 125,048,414	46.2%
Renovation Cost Per Sq. Ft.	2014	\$ 400	sq. ft.			\$ 29,061,084	Average Cost Per School (2014 dollars)		
Escalation Rate	3%								
Washington	2017	\$ 437	60,518			\$ 26,451,861			
Robertson	2019	\$ 464	45,819			\$ 21,246,712			
Verplanck	2021	\$ 492	54,776			\$ 26,947,028			
Buckley	2023	\$ 522	57,357			\$ 29,935,150			
Keeney	2025	\$ 554	50,200			\$ 27,795,416			
Waddell	2027	\$ 587	66,363			\$ 38,982,521			
Bowers	2029	\$ 623	54,637			\$ 34,049,066			
Martin	2031	\$ 661	40,961			\$ 27,080,917			
<b>Total Elementary New Verplanck &amp; Like-New Renovation</b>				2,764	331,680	\$ 232,488,671	\$ 107,440,257.48	\$ 125,048,414	46.2%
<b>Bennet Middle School (5&amp;6) 2016</b>			- 162,000	937	138,676	\$ 17,400,000	\$ 10,440,000.00	\$ 6,960,000	60.0%
<b>Total Combined Costs</b>			592,631	3,701	470,356	249,888,671	117,880,257	132,008,414	47.2%

#### Notes - Option #6:

- 1) Actual building sq. ft. is the sum of the 8 elementary schools to be renovated like new.
- 2) The projected K-4 peak is for all K-4 students 3,064 minus 300 students at Highland Park Elementary is based on peak 8 yr. enrollment data from 12/10/13 study by Peter M. Prowda.
- 3) Allowable sq.ft. is 120 per pupil for grades K-4 and 148 for grades 5 & 6 based on State Space Standards
- 4) Allowable sq.ft. has not been adjusted for pre-1950's construction due to incomplete data across the district (conservative approach).
- 5) Effective Reimbursement Rate is a proration based on the ratio of allowable to actual building square footage of an assumed net 60% rate , 2014 SDE rate of 65.71 reduced based on past project experience.
- 6) The cost per square foot and projected escalation of these costs are for comparison purposes only.
- 7) The allowable sq.ft. for Bennet 5th/6th grade academy is based on peak 8 yr. enrollment data from 12/10/13 study by Peter M. Prowda.
- 8) The projected reimbursement rate for Bennet 5th/6th grade academy is based on approval of Special Legislation that will be required for grant funding.
- 9) The projected cost per square foot for New Verplanck is based on \$500/s.f. in 2014 dollars escalated to 2017 dollars
- 10) The cost for like-new Waddell for 525 students is based on the average of the cost estimates for the two options suggested by TSK, includes about 43% new addition construction.
- 11) Priority of renovations based on input from District Facilities Manager.

## Option 6

5<sup>th</sup> & 6<sup>th</sup> Grade Bennet Academy

Like-New Renovation Remaining K-4 Schools

### MERITS

1. Renovates the Cheney building for grade 5 and occupies underutilized spaces within the Bennet Academy
2. Allows for shared cafeteria, gymnasium, art and music space avoiding the duplication of these instructional spaces for the grade 5 school and enrollment
3. Addresses the Board of Education's high priority on facility improvements for Verplanck, Washington, and Robertson School
4. Addresses needed critical facility improvements in all elementary schools with access to State reimbursement funding.
5. Provides all elementary school students in a 21<sup>st</sup> century learning environment
6. Maintains class sizes at 17-22 students per classroom
7. Ensures that Highland Park School is fully occupied
8. Achieves racial balance in all schools and without any impending racial balance
9. Achieves equitable access for all students to modern, safe, healthy, and technologically equipped schools
10. Less estimated movement of students to achieve racial balance

### DRAWBACKS

1. Creates excess classroom space with 72.4% utilization rate of all available classrooms space
2. Low combined reimbursement rate for all school projects 47.2%
3. Highest combined cost with reimbursement in comparison to the other options
4. Highest total combined cost to the town without reimbursement
5. Seventeen year construction timeline
6. Increase in annual cost for transportation to swing space school(s)
7. Students relocated during construction to schools throughout the district
8. Using existing space in existing elementary schools during the entire construction timeline as swing space limits availability of classroom space gained with the relocation of grade five
9. Some ongoing capital improvements needed in schools throughout the construction timeline

## Option #7 Grade Configuration K-5, 6, 7-8, 9-12

### Option Summary

- Complete renovations and/or like-new renovations of all elementary schools except HPS
- Determine available swing space during renovation of elementary schools

<b>Option # 7</b>							
<b>Enrollment – Classroom Utilization – Racial Balance - (2013-14 Enrollments)</b>							
<b>School Facility</b>	<b>K-5 Enrollment</b>	<b>Full Size K-5 Classrooms</b>	<b>Targeted Capacity*</b>	<b>Percent Utilization</b>	<b>Percent Minority</b>	<b>Racial Imbalance</b>	<b>Percent Free and Reduced Lunch</b>
Bowers	376	21	462	81.4%	56.4%	5.3%	59.6%
Buckley	360	23**	360	100.0%	51.1%	10.5%	41.1%
Highland Park	324	15	320	101.3%	49.7%	11.9%	50.3%
Keeney	316	18	396	79.8%	53.5%	8.2%	41.5%
Martin	290	15	330	87.9%	54.5%	7.2%	55.9%
Robertson	358	20	440	81.4%	75.1%	-13.5%	48.3%
Verplanck	298	18	396	75.3%	75.5%	-13.9%	71.1%
Waddell	379	19	418	90.7%	64.4%	-2.7%	68.1%
Washington	302	17	374	80.7%	75.8%	-14.2%	85.1%
<b>District K-5 Total</b>	<b>3,003</b>		<b>3,496</b>	<b>85.9%</b>	<b>61.6%</b>		<b>57.5%</b>

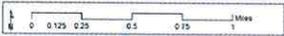
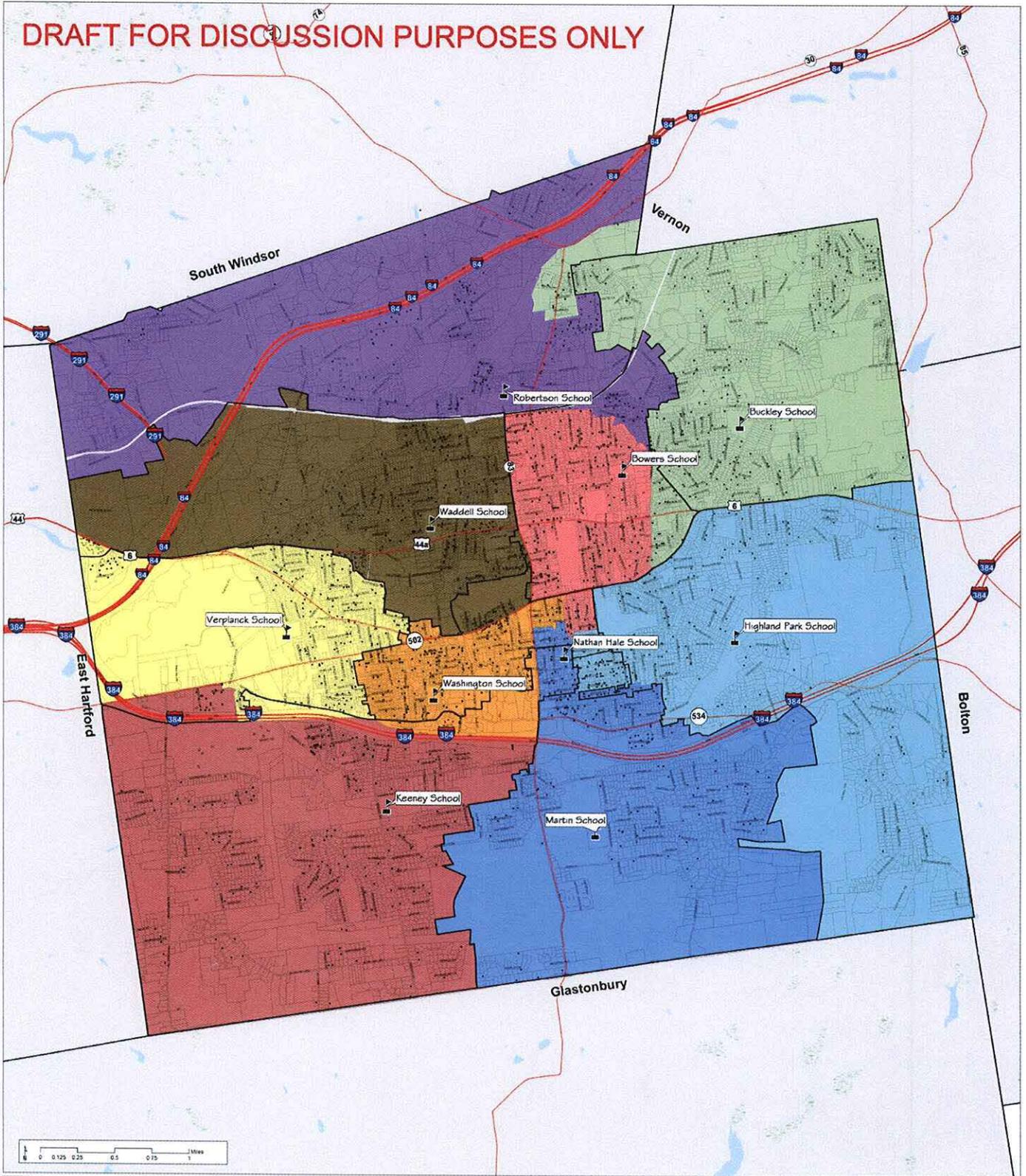
\* Capacity was set at 22 students per classroom except Highland Park which were set by construction targets

\*\* 7 Classrooms were held at Buckley for PreK

### Estimated Movement and Retention of K-5 Students

Post Redistricting → Current School ↓	Bowers		Buckley		Highland Park		Keeney		Martin		Robertson		Verplanck		Waddell		Washington	
	#	%	#	%	#	#	%	#	%	#	#	%	#	%	#	%	#	%
Bowers	321	75.4%	27	6.3%	2	0.5%	0	0.0%	4	0.9%	47	11.0%	3	0.7%	16	3.8%	6	1.4%
Buckley	6	2.0%	256	84.8%	7	2.3%	0	0.0%	4	1.3%	17	5.6%	5	1.7%	2	0.7%	5	1.7%
Highland Park	2	0.8%	4	1.5%	220	82.7%	0	0.0%	34	12.8%	2	0.8%	3	1.1%	0	0.0%	1	0.4%
Keeney	4	1.2%	4	1.2%	5	1.5%	245	72.9%	37	11.0%	2	0.6%	18	5.4%	18	5.4%	3	0.9%
Martin	7	2.5%	0	0.0%	78	27.9%	1	0.4%	178	63.6%	2	0.7%	8	2.9%	3	1.1%	3	1.1%
Robertson	2	2.0%	68	18.3%	2	0.5%	0	0.0%	10	2.7%	284	76.3%	2	0.5%	1	0.3%	3	0.8%
Verplanck	0	0.0%	0	0.0%	0	0.0%	66	20.7%	2	0.6%	0	0.0%	240	75.2%	8	2.5%	3	0.9%
Waddell	1	0.3%	1	0.3%	2	0.6%	2	0.6%	3	0.9%	2	0.6%	18	5.3%	304	89.4%	7	2.1%
Washington	33	9.1%	0	0.0%	8	2.2%	2	0.6%	18	5.0%	2	0.6%	1	0.3%	27	7.5%	271	74.9%
	376		360		324		316		290		358		298		379		302	

**DRAFT FOR DISCUSSION PURPOSES ONLY**



*Manchester Public Schools*



*Manchester Proposed Redistricting Options  
Option #7 K-5*

**Attendance Area**

- Bowers School District
- Buckley School District
- Highland Park School District
- Keeney School District
- Martin School District
- Robertson School District
- Verplanck School District
- Waddell School District
- Washington School District

Districts as Adopted 2012

Date: Feb 2014

Source:  
GIS Parcel BaseMap:  
Town of Manchester, CT GIS Department  
School Locations:  
School District Boundaries:  
Town of Manchester, Board of Education

## OPTION #7 ANALYSIS

### ❖ Renovation like new all 8 Elementary Schools K-5 Configuration

	Start Year	\$/sq. ft.	Actual Building Sq. Ft.	Projected 8 yr. Enrollment 2016-2023	Allowable S.F.	New Construction & Like New Renovation Cost	Projected Reimbursement	Town Cost Share	Effective Reimbursement Rate
District Wide K-4 Space			430,631	2,764	331,680	\$ 232,488,671	\$ 107,440,257	\$ 125,048,414	46.2%
Renovation Cost Per Sq. Ft.	2014	\$ 400	sq. ft.			\$ 29,061,084	Average Cost Per School (2014 dollars)		
Escalation Rate	3%								
Washington	2017	\$ 437	60,518			\$ 26,451,861			
Robertson	2019	\$ 464	45,819			\$ 21,246,712			
Verplanck	2021	\$ 492	54,776			\$ 26,947,028			
Buckley	2023	\$ 522	57,357			\$ 29,935,150			
Keeney	2025	\$ 554	50,200			\$ 27,795,416			
Waddell	2027	\$ 587	66,363			\$ 38,982,521			
Bowers	2029	\$ 623	54,637			\$ 34,049,066			
Martin	2031	\$ 661	40,961			\$ 27,080,917			
<b>Total Elementary Like-New Renovation</b>			430,631	2,764	331,680	\$ 232,488,671	\$ 107,440,257.48	\$ 125,048,414	46.2%

**Notes - Option #7:**

- 1) Existing building sq. ft. is the sum of the 8 elementary schools to be renovated like new.
- 2) The projected K-5 peak is for all K-5 students 3,552 minus 300 students at Highland Park Elementary is based on peak 8 yr. enrollment data from 12/10/13 study by Peter M. Prowda.
- 3) Allowable sq.ft. is 120 per pupil for grades K-4 and 148 for grades 5 & 6 based on State Space Standards
- 4) Allowable sq.ft. has not been adjusted for pre-1950's construction due to incomplete data across the district (conservative approach).
- 5) Effective Reimbursement Rate is a proration based on the ratio of allowable to actual building square footage of an assumed net 60% rate , 2014 SDE rate of 65.71 reduced based on past project experience.
- 6) The cost per square foot and projected escalation of these costs are for comparison purposes only.
- 7) The allowable sq.ft. for Bennet 5th/6th grade academy is based on peak 8 yr. enrollment data from 12/10/13 study by Peter M. Prowda.
- 8) The projected reimbursement rate for Bennet 5th/6th grade academy is based on approval of Special Legislation that will be required for grant funding.
- 9) The projected cost per square foot for New Verplanck is based on \$500/s.f. in 2014 dollars escalated to 2017 dollars
- 10) The cost for like-new Waddell for 525 students is based on the average of the cost estimates for the two options suggested by TSK, includes about 43% new addition construction.
- 11) Option #4 does not include costs for staged construction or other options that would be required to address swing space requirements.

## **Option 7**

### **Renovate like new all 8 Elementary Schools K-5 Grade Configuration**

#### **MERITS**

1. Addresses the Board of Education's high priority on facility improvements for Verplanck, Washington, and Robertson schools
2. Addresses needed critical facility improvements in all elementary schools with access to State reimbursement funding
3. Provides all elementary school students in a 21<sup>st</sup> century learning environment
4. Maintains class sizes at 17-22 students per classroom
5. Ensures that Highland Park School is fully occupied
6. Achieves racial balance in all schools and without any impending racial balance
7. Achieves equitable access for all students to modern, safe, healthy, and technologically equipped schools
8. Results in utilization of classroom space 85.9%
9. Least estimated movement of students throughout the district to achieve racial balance

#### **DRAWBACKS**

1. Low combined reimbursement rate for all school projects 46.2%
2. Highest combined cost with reimbursement in comparison to the other options
3. Highest total combined cost without reimbursement in comparison to other options
4. Seventeen year construction timeline
5. Increase in annual cost for transportation to swing space school(s)
6. No classrooms throughout the district available as swing space
7. Classroom additions or portable classrooms to accommodate the projected increase in enrollment resulting in additional costs
8. Some capital improvements in schools throughout the construction timeline

## SUMMARY OF SCHOOL CAPITAL CONSTRUCTION OPTIONS

	Combined Building Sq.ft.	Projected 8 yr. Enrollment 2016-2023	Allowable S.F.	Total Option Cost <sup>1</sup>	Projected Reimbursement <sup>1</sup>	Town Cost Share <sup>1</sup>	Effective Reimbursement Rate <sup>1</sup>
OPTION #1	554,518	3,701	470,356	\$ 230,000,000	\$ 118,200,000	\$ 111,800,000	51%
OPTION #2	518,065	3,701	470,356	\$ 210,300,000	\$ 118,300,000	\$ 92,000,000	56%
OPTION #3	539,522	3,701	470,356	\$ 212,700,000	\$ 113,400,000	\$ 99,300,000	53%
OPTION #4	499,340	3,701	470,356	\$ 196,700,000	\$ 116,200,000	\$ 80,500,000	59%
OPTION #5	490,340	3,701	470,356	\$ 184,100,000	\$ 111,400,000	\$ 72,600,000	61%
OPTION #6	592,631	3,701	470,356	\$ 249,900,000	\$ 117,900,000	\$ 132,000,000	47%
OPTION #7 <sup>2</sup>	430,631	2,764	331,680	\$ 232,500,000	\$ 107,400,000	\$ 125,000,000	46%

1) Cost estimates were developed using the same assumptions for purposes of comparison between options except where more specific data was available from architectural conceptual feasibility studies. These preliminary cost estimates derived from square foot unit prices were then escalated using a long term average rate of 3% annual cost increase for demonstration purposes only. Due to the preliminary nature of the concepts, these estimates only establish orders of magnitude and relative costs. As the cost of certain options are within the margin of error of the estimates, the decision on which option(s) to pursue should be based on factors other than cost. SDE Grant Reimbursement calculation estimates are based on grant program guidelines, actual SDE grant results will vary depending on the program requirements in effect when such projects are completed and the designs for these projects.

2) Option #7 cost estimates do not include costs for swing space or phased construction that would most likely add at least 10% or more to the total option cost making Option #7 a more expensive alternate to Option #6 which inherently provides swing space during renovations of the elementary school by moving the 5th graders to Bennet Academy.

## SUMMARY OF SCHOOL CAPITAL CONSTRUCTION OPTIONS

	OPTION #1	OPTION #2	OPTION #3	OPTION #4	OPTION #5	OPTION #6	OPTION #7 <sup>2</sup>
5th & 6th Grade Bennet Academy	<input checked="" type="checkbox"/>						
New Construction Verplanck (350 Students)		<input checked="" type="checkbox"/>					
New Construction Verplanck (525 Students)	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>			
Current Verplanck (swing space)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>					
Like-New Renovation Verplanck (525 Students)					<input checked="" type="checkbox"/>		
Like-New Renovation Robertson (325 Students)		<input checked="" type="checkbox"/>					
Like-New Renovation Robertson (425 Students)	<input checked="" type="checkbox"/>						
Like-New Renovation Robertson (525 Students)							
Like-New Renovation Waddell (525 Students)			<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
Like-New Renovation Washington (525 Students)							
Renovate Remaining 4 Elementary Schools K-4					<input checked="" type="checkbox"/>		
Partial Renovate Remaining 4 Elem. Schools K-4							
Renovate Remaining 5 Elementary Schools K-4	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			
Renovate Remaining 8 Elementary Schools K-4						<input checked="" type="checkbox"/>	
Renovate Remaining 8 Elementary Schools K-5							<input checked="" type="checkbox"/> <sup>2</sup>
Close Robertson				<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
Close Washington	<input checked="" type="checkbox"/>						
Close Verplanck							
Close Waddell							
<b>Total Cost*</b>	\$ 230,000,000	\$ 210,300,000	\$ 212,700,000	\$ 196,700,000	\$ 184,100,000	\$ 249,900,000	\$ 232,500,000
<b>Projected Reimbursement*</b>	\$ 118,200,000	\$ 118,300,000	\$ 113,400,000	\$ 116,200,000	\$ 111,400,000	\$ 117,900,000	\$ 107,400,000
<b>Town Cost Share*</b>	\$ 111,800,000	\$ 92,000,000	\$ 99,300,000	\$ 80,500,000	\$ 72,600,000	\$ 132,000,000	\$ 125,000,000
<b>Effective Reimbursement Rate*</b>	51.4%	56.2%	53.3%	59.1%	60.6%	47.2%	46.2%

1) Cost estimates were developed using the same assumptions for purposes of comparison between options except where more specific data was available from architectural conceptual feasibility studies. These preliminary cost estimates derived from square foot unit prices were then escalated using a long term average rate of 3% annual cost increase for demonstration purposes only. Due to the preliminary nature of the concepts, these estimates only establish orders of magnitude and relative costs. As the cost of certain options are within the margin of error of the estimates, the decision on which option(s) to pursue should be based on factors other than cost. SDE Grant Reimbursement calculation estimates are based on grant program guidelines, actual SDE grant results will vary depending on the program requirements in effect when such projects are completed and the designs for these projects.

2) Option #7 cost estimates do not include costs for swing space or phased construction that would most likely add at least 10% or more to the total option cost making Option #7 a more expensive alternate to Option #6 which inherently provides swing space during renovations of the elementary school by moving the 5th graders to Bennet Academy.

# MANCHESTER SCHOOLS CAPITAL PROJECT ANALYSIS

\$249,900,000

