



# **Burlington School District Facilities Master Plan**

## **Interim Report**

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**white + burke**  
REAL ESTATE INVESTMENT ADVISORS

Founded in 1990

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# Facilities Master Plan – Process and Purpose

Like many school districts across Vermont and the United States, the Burlington School District is largely composed of aging facilities. Of the District’s nine school properties, the newest building (Champlain Elementary) was built in 1968, while the oldest (Edmunds Middle) was built in 1903. The average age of Burlington’s school buildings is 71 years old. While the District has worked hard to maintain these facilities and keep them in good working condition, the facilities have withstood years of continuous, heavy use, combined with declining state funds for public school maintenance, changing curricula, and increasing federal and state mandates to provide expanded educational programs and services.

The combination of these factors led the Burlington School Board to approve the creation of a long range facility master plan in the summer of 2015. The objective of this planning effort was to evaluate the District’s facilities and space needs and to identify improvements that would ensure the health and safety of students and staff, support the District’s educational programs, and fulfill the needs of the school community. To lead this effort, the District established a working steering committee consisting of District administrative staff with the help of two consultants – White + Burke Real Estate Investment Advisors and Michael Smith.

The purpose of this Facility Master Plan is to provide a valuable fact-based planning tool for use in facility related decision making and capital programming. This plan identifies the primary needs of the District and sets a logical course of action for capital improvements and facility management initiatives over the next 10 years that will bring the District’s facilities into proper shape in support of high quality educational opportunities for many years to come. This Facility Master Plan is intended to be a living document that will be re-examined and updated during each budget cycle.

## Past Planning Efforts

The District has undertaken similar facility planning efforts in recent years including the following:

***Vision + Master Plan for Excellence + Equity in 21<sup>st</sup> Century Buildings – August, 2008:*** In 2007 – 2008, Frank Locker Educational Planners was hired along with Colin Lindberg Architects to work with a steering committee to develop a facilities master plan for the District. The result of their work was a very comprehensive and ambitious master plan that addressed educational visioning and programming, operational improvements, and recommendations for physical space changes including the construction of additions at each of the District’s schools and IRA. The estimated cost to implement the plan was over \$200 million. While the plan generated significant community engagement and thoughtful ideas on how best to improve the District’s facilities, concerns regarding cost were expressed and a bond vote was never brought forward to fund the plan recommendations.

***Renewing the BHS and BTC Campus – 2014:*** Black River Design Architects was hired to work with a multi-stakeholder steering committee in 2013 – 2014 to study the BHS/BTC campus and develop conceptual plans for improvements to the facility to better promote a 21<sup>st</sup> century learning environment. The team’s work focused on addressing extensive deferred maintenance issues, safety and ADA deficiencies, classroom configuration and layout, campus security, and “green” building solutions. The team submitted 3 renovation/redevelopment scenarios to the School Board for

consideration: A) full renovation with small additions, B) partial demolition with a large addition, and C) new building and full demolition. The cost of the 3 scenarios was estimated to be \$67 million for A, \$73 million for B and \$94 million for C. Due primarily to cost concerns, the School Board decided to put the BHS/BTC planning on hold while the District studied the needs of all its facilities.

## Plan Goals

The following goals guided the work of the steering committee in developing this Facilities Master Plan:

- Ensure high quality educational opportunities for ALL Burlington students
- Make certain our school facilities adequately support the provision of high quality educational opportunities
- Attain proper balance between the District's facility and space needs and the ability of taxpayers to afford those needs

## The District's Facilities

The District's real estate and facility assets currently consist of the 10 properties listed below. These properties contain a total of 137 acres of land and 729,000 square feet of building area. A snapshot of each property -- including address, building size, acreage, year built, and existing programs -- is provided in Appendix A. The District's existing facilities include:

- Burlington High School and Burlington Technical Center – Institute Road
- Champlain Elementary School – Pine Street
- C.P. Smith Elementary School – Ethan Allen Parkway
- Edmunds Middle and Elementary Schools – Main Street
- Flynn Elementary School – North Avenue
- Integrated Arts Academy (IAA) – Archibald Street
- IRA (EEE & District Administrative Offices) – Colchester Avenue
- Lyman C. Hunt Middle School – North Avenue
- Property Services – Shelburne Street
- Sustainability Academy (SA) – North Street

## Facility and Space Needs Assessment

In developing a facilities master plan, it is important to understand the space needs for current and future student populations and desired educational programs, and the condition of existing facilities. To gain a firm understanding of these issues, the steering committee undertook a process of review that included the following components:

- Student enrollment projections
- Educational program space standards
- Facility inventory

- Space needs assessment
- Facilities condition assessment

## Student Enrollment Projections

Past, current and future student enrollments are provided in the table below. More detailed information relative to enrollment projections and the methodology used is provided in Appendix B. Student populations have remained stable over the past 10 years. This trend of stable populations is expected to continue over the next 10 years with a possible anticipated increase of only 2% to 8% in total District enrollment. With little growth in student populations anticipated, it is fair to assume that the District’s space needs in 10 years will be similar to today’s space needs.

Student Enrollment Projections								
Facility	2005-2006 Enrollment	2015-2016* Enrollment	2025 Projections		# Change 2015 - 2025		% Change 2015 - 2025	
			Low	High	Low	High	Low	High
Elementary (K-5)	1,538	1,733	1,758	1,905	25	172	1.4%	9.9%
Middle	807	777	770	807	-7	30	-0.9%	3.9%
High School	1,152	986	1,041	1,058	55	72	5.6%	7.3%
<b>TOTAL</b>	<b>3,497</b>	<b>3,496</b>	<b>3,569</b>	<b>3,770</b>	<b>73</b>	<b>274</b>	<b>2.1%</b>	<b>7.8%</b>

\* Enrollment as of 3/11/16

## Educational Program Space Standards

Working closely with the District’s program directors, the steering committee developed educational program space standards for each school type -- elementary, middle and high school. The standards address all educational programs offered in the schools including curriculum, special education, English language learners (ELL), pre-kindergarten, and after school. The standards include the recommended minimum number and size of rooms that should be devoted to each program. This information allowed the steering committee to assess whether recommended programs are being provided and if the spaces devoted to each program are adequately sized. The educational program standards for each school type are provided in Appendix C.

## Facility Inventory

Working with each school principal, the steering committee created an inventory of the number, size and use of each room in every school. This inventory provided insight into how each school is currently meeting the educational space standards described above. The inventory for each school building is provided in Appendix D.

## Space Needs Assessment

Based on information gained from the student enrollment projections, educational program space standards, and the facility inventory, the steering committee was able to assess the space needs for

each school building. This information allowed the steering committee to determine which facilities currently have adequate capacity to support desired educational programs and which facilities are constrained in their ability to meet educational needs.

### Elementary and Middle Schools

The table below summarizes the results of the space needs assessment for the District’s elementary and middle schools. More detailed information related to the ability of each school to meet space requirements for recommended educational programming is provided in Appendix E.

**Elementary/Middle School Space Needs Assessment  
Current Programming/Student Distribution**

Facility	2015 - 2016 Enrollment	2025 Enrollment (High Projection)	Capacity
<b>Elementary</b>			
Champlain	317	339	<b>Constrained</b>
Edmunds	344	389	<b>Constrained</b>
Flynn	345	361	Adequate
IAA	265	334	<b>Constrained</b>
SA	193	220	<b>Constrained</b>
Smith	269	262	Adequate
TOTAL	1733	1905	
<b>Middle</b>			
Edmunds	395	438	Adequate
Hunt	382	369	Adequate
TOTAL	777	807	

\* In addition to 1733 K-5 students, current Pre-K enrollment in District schools is about 100 students

For the District’s elementary schools, 4 of 6 schools are constrained in their ability to accommodate recommended educational programming for curriculum, special education, ELL, pre-kindergarten, and after school. For Champlain and Edmunds elementary schools, much of their space constraint is due to a lack of a separate cafeteria. For IAA and SA, these schools are the smallest in the District in terms of total square footage and simply do not have the physical space necessary for meeting recommended standards for all desired educational programs.

Both middle schools have adequate space to accommodate recommended educational programming.

### Burlington High School (BHS) and Burlington Technical Center (BTC)

Burlington High School (BHS) has sufficient space to accommodate projected educational programming. One important finding, however, is that over half of BHS classrooms lack sufficient size to accommodate

the maximum number of students allowed by policy or program. This raises the need to possibly look at reconfiguring some of the spaces to allow for maximum classroom sizing.

Burlington Technical Center (BTC) has adequate space to accommodate recommended programming, including adequate space for 11 programs with classrooms and labs.

## Facilities Condition Assessment

As part of this long range planning effort, the District hired EMG to perform a Facility Condition Assessment (FCA) of the 10 school facility sites. EMG interviewed building maintenance staff and reviewed available engineering studies, construction documents, and utility data to familiarize themselves with the physical conditions of the buildings and to perform a preliminary energy use analysis. The EMG teams then inventoried and evaluated each of the BSD buildings and properties to benchmark current conditions and establish replacement values. This comprehensive FCA evaluated site conditions (including parking lots), building envelopes, mechanical/HVAC, electrical, plumbing, fire protection and accessibility. EMG identified more than \$76 million of needed improvements over the next 20 years to address deferred and preventative maintenance issues. Details of needed repairs/maintenance for each school facility -- including a comprehensive breakdown by category, item, cost and recommended year for replacement -- is provided in the EMG report entitled “Burlington School District Facility Condition Assessment and Level 1 Energy Audit Executive Summary Report, April 2016”. The estimated cost to address deferred and preventative maintenance over the next 20 years for each District facility is summarized in the table below:

**EMG Facility Condition Assessment**

Location	Building Area (SF)	Total 10 Year Cost (Years 1 - 10)	Total 20 Year Cost (Years 1 - 20)	Facility Condition Index (FCI)
Champlain	51,140	\$1,685,312	\$3,076,294	19%
Edmunds Elementary & Middle	151,156	\$6,292,289	\$8,863,281	18%
Flynn	52,688	\$844,036	\$3,063,242	18%
IAA	39,080	\$1,269,772	\$3,170,671	25%
SA	31,406	\$1,299,837	\$2,054,294	20%
Smith	41,048	\$352,556	\$1,140,456	9%
Hunt	77,633	\$6,103,505	\$6,682,468	26%
BHS/BTC	236,000	\$27,017,179	\$31,590,185	41%
IRA	16,860	\$2,873,951	\$3,415,602	62%
Property Services	12,244	\$357,956	\$453,178	30%
Construction/Soft Cost Contingency (20%)		\$9,619,279	\$12,701,934	
<b>TOTAL FOR BURLINGTON SCHOOL DISTRICT</b>	<b>709,255</b>	<b>\$57,715,672</b>	<b>\$76,211,605</b>	

One of the goals of the FCA is to calculate the Facility Condition Index (FCI), which gives an indication of a facility’s overall condition. The FCI is also used in helping to determine when it makes sense to replace or divest a facility rather than invest in repairing the facility. The FCI value is based on a scale of 0 to 100 percent and is derived by dividing the immediate repair needs for a facility by the calculated

replacement value. A lower FCI value indicates that the building infrastructure is in a better condition. Typically, a “Good” condition facility will have the FCI below 5 percent, a “Fair” condition building will have the FCI between 5 and 10 percent, and a “Poor” condition facility will have the FCI above 10 percent. If the FCI exceeds 65 percent, this is considered “Very Poor”, and the facility is a candidate for replacement or divestment consideration.

As indicated in the table above, all of the District’s facilities are considered to be in “Poor” condition, with the exception of C.P. Smith Elementary School which is considered to be in “Fair” condition. None of the facilities are considered to be in “Very Poor” condition. Therefore, from a purely physical condition standpoint, it makes more sense to invest in repairing and maintaining these facilities than to replace them with very costly new facilities.

## **Facilities and Space Needs Assessment – Key Findings and Observations**

Key findings and observations from the facilities and space needs assessment include the following:

- Student enrollments over the next 10 years are expected to remain relatively stable. Therefore, the District does not anticipate significant demand for new or expanded space due to growing school populations.
- Most of the District’s facilities appear to have adequate capacity to accommodate student populations and desired educational programming. Of the 4 elementary schools that are currently constrained for space, the extent of this constraint is relatively small and can likely be addressed through a combination of student population redistribution, relocation of certain programs to other buildings, more efficient use and reconfiguration of existing space, and, if need be, one or two small additions.
- While most school buildings have sufficient square footage to accommodate future programs and student enrollments, some interior renovation and reconfiguration may be necessary to enhance efficiency and effectiveness of meeting programming requirements, particularly at BHS.
- Most of the District’s facilities are in poor condition due to years of deferred maintenance. However, based on the Facility Condition Index (FCI) rating for each facility, it makes more sense to invest in repair and continued preventative maintenance of these facilities than it does to build new facilities that are extremely costly to construct.

## **Plan Recommendations**

As the steering committee investigated the needs of the District, several themes emerged related to the types of projects and improvements required in the school facilities to support high quality learning environments at a cost the taxpayers could afford. These essential themes include:



### ***Responsible Stewardship of District's Capital Assets***

A primary focus of this plan is to address critical repair, replacement and ongoing maintenance of the District's facility assets. Responsible stewardship of our public school facilities is a core obligation of municipal government to ensure high quality educational opportunity, healthy and safe learning environments, and fiscal responsibility. The combination of an aging building stock and lack of ongoing funding to maintain a regular repair and replacement schedule has created a backlog of critical needs. Many building and site systems have reached or will soon reach the end of their service lives. The longer these critical needs are ignored, the more expensive it will be to repair and replace. Over 85% of the cost to implement this plan is devoted to addressing deferred and preventative maintenance needs. In addition to repairing and replacing worn out fixtures and equipment, these recommended improvements include necessary upgrades to accessibility, life safety and energy efficiency.

### ***Functional Facility Enhancements***

While most of the District's schools and buildings have adequate space to house desired educational programs and support services, several enhancements are recommended to improve the functionality of learning environments. These enhancements target primarily the renovation and/or reconfiguration of existing space to improve functionality and operational efficiencies. Less than 15% of the projected budget to implement this plan is devoted to renovation or construction of new space.

### ***Fiscal Responsibility***

Recent facility planning efforts have either stalled or died due primarily to cost concerns. A primary goal in developing this Facilities Master Plan was to attain a proper balance between meeting the District's educational space needs and the ability of taxpayers to afford those needs. This Facilities Master Plan represents a lowest cost alternative which promotes appropriate stewardship of our public facilities while respecting the ability of taxpayers to pay for the cost of providing facilities that support high quality education for Burlington residents.

## **Capital and Programming Improvements**

This Facilities Master Plan recommends the following capital and programming improvements:

### **Elementary Schools**

- Implement deferred and preventative maintenance improvements recommended by EMG in all 6 elementary schools.
- Move all Pre-Kindergarten programs out of the elementary schools and into one centralized facility at IRA on Colchester Avenue. This will free up space in 4 schools for other program use such as special education and/or ELL.
- Cap enrollment at IAA to 260 students and SA to 195 students, and rebalance student population in other schools.

- Edmunds Elementary – renovate the interior of Building C to add a separate cafeteria for shared use by the elementary and middle schools. This will free up the existing gym/cafeteria space in Building C for sole use by the elementary school as a gym and multi-purpose room.
- Champlain Elementary
  - Construct a 4 classroom addition to accommodate more students (400 max).
  - Redesign existing interior space to provide a cafeteria separate from the gym.
  - Implement pedestrian and vehicular circulation and safety improvements.
- Implementation of these functional and programming improvements results in all elementary schools having adequate space to accommodate recommended educational programming as shown in the table below. Detailed information related to the ability of each school to meet space requirements for recommended educational programming is provided in Appendix F.

**Elementary/Middle School Space Needs Assessment  
With Plan Implementation**

Facility	2015 - 2016 Enrollment	2025 Enrollment (High)	Capacity
<b>Elementary</b>			
Champlain	317	370	<b>Adequate</b>
Edmunds	344	400	<b>Adequate</b>
Flynn	345	400	<b>Adequate</b>
IAA	265	260	<b>Adequate</b>
SA	193	195	<b>Adequate</b>
Smith	269	280	<b>Adequate</b>
TOTAL	1733	1905	
<b>Middle</b>			
Edmunds	405	438	<b>Adequate</b>
Hunt	383	369	<b>Adequate</b>
TOTAL	788	807	

### Middle Schools

- Implement deferred and preventative maintenance improvements recommended by EMG in both middle schools.
- Review existing room configuration and sizes to determine if interior changes are needed to maximize capacity and efficiency.

### BHS and BTC

- Implement deferred and preventative maintenance improvements recommended by EMG.

- Implement ADA upgrades and life safety improvements (i.e. sprinkle buildings).
- Move the OnTop program into BHS Building A.
- Review existing room configuration and sizes to determine if interior changes can maximize classroom capacity and efficiency.

## **IRA**

- Implement deferred and preventative maintenance improvements recommended by EMG.
- Move District administrative offices to another building in order to make room for additional pre-kindergarten classrooms
- Renovate space to include at least 4 additional pre-kindergarten classrooms, and operate entire building as a pre-kindergarten center.

## **District Offices**

- Pursue a city/school collaborative to combine governmental leadership and school administrative staff under one roof.

## **Property Services**

- Implement deferred and preventative maintenance improvements recommended by EMG.
- Explore a shared use arrangement with the City for use and improvement of the Property Services property.

## **Horizons Program**

- Finalize negotiation of a lease to house the Horizon program in a privately owned building for 5 to 10 years.
- Continue to evaluate a long term solution for location of this program.

## **Cost Estimates**

The table below presents an estimate of cost over the next 10 years to implement the capital and programming improvements recommended in this Facility Master Plan. The costs contained in this plan are estimates for planning purposes only and are based on broad industry pricing standards and conceptual plans. More precise cost estimating will be done as further evaluation is conducted, design

plans are completed and bidding is pursued. A more detailed cost breakdown by line item and projected year of construction is provided in Appendix G.

<b>10 Year Facility Capital Cost Projection</b>	
<b>Item</b>	<b>10 Year Cost Estimate (Years 1 - 10)</b>
<b>Deferred/Preventative Maintenance</b>	
All Facilities	\$ 57,715,672
<b>Facility Enhancements</b>	
Champlain	
2 Story Addition (4 classrooms)	\$ 1,334,880
Separate Kitchen/Cafeteria	\$ 690,100
Circulation & Safety Improvements	\$ 231,750
IRA	
Renovate to add PreK Classrooms	\$ 365,650
Edmunds	
Renovate Bldg C for Cafeteria	\$ 3,715,272
Construction/Soft Cost Contingency (20%)	\$ 1,267,530
<b>TOTAL CAPITAL COST</b>	<b>\$ 65,320,854</b>

## **Alternative Approaches and Opportunities for Collaboration**

The development of this Facilities Master plan included exploring various alternative approaches to providing educational programming and facility utilization in ways that would promote efficiency and cost savings. The alternative approaches that were studied included the following:

- Creation of a centralized pre-school program in one facility.
- Establishment of a multi-district ELL Academy.
- Partner with compatible non-profit entities to provide after school and other specialized programs in locations not owned by BSD.
- Institute avenues to bolster tuition students.
- Collaboration with City and other governmental entities to share facilities and programs.
- Collaboration with area developers and institutions of higher education to share facilities and programs.

This Facilities Master Plan recommends implementation of two (2) of the alternative approaches listed above -- creating a centralized pre-school program in one facility and collaborating with the City to share space for administrative offices. While immediate implementation of the other alternative approaches is not recommended at this time, the steering committee urges the District to continue exploring these creative approaches for possible implementation in the future.

## Conclusion

This Facilities Master Plan provides the following benefits:

- The plan provides an appropriate framework of analysis, ideas and recommendations to support further discussions with the Burlington community on how best to use, improve, plan for and fund the facility needs of the District.
- The plan focuses on responsible stewardship of public infrastructure which is a core responsibility of municipal government that drives educational excellence, equity, public safety, and highest value of public investment.
- The plan represents a minimum cost alternative for meeting the facility needs of the District. The focus on repair and preventative maintenance of existing facilities offers a more reasonable cost structure than new construction.
- The plan maintains the Neighborhood School Model as no school closures are proposed.
- The plan provides for appropriate space to ensure the health and safety of students and staff, support the District's educational programs, and fulfill the needs of the school community.

# APPENDICES

- A. Burlington School District Real Estate and Facility Assets
- B. Burlington School District Enrollment Projections
- C. Educational Program Standards
- D. Burlington School District – Inventory of School Buildings
- E. Elementary/Middle Schools Space Needs Assessment – Current Programming/Student Distribution
- F. Elementary/Middle Schools Space Needs Assessment – Plan Recommendations
- G. FY 2017 – 2036 Capital Cost

## Appendix A

### Burlington School District Real Estate and Facility Assets

<b>School Facility Name</b>	<b>Address</b>	<b>Programs</b>	<b>Land Area (Acres)</b>	<b>Building Area (Square Feet)</b>	<b>Year Constructed</b>
<b>Burlington High School</b>	52 Institute Road	High School, Technical Center	49.4	251,387	1963
<b>C.P. Smith</b>	332 Ethan Allen Pkwy	Elementary School	20.3	41,048	1959
<b>Champlain</b>	800 Pine Street	Elementary School	23.8	51,125	1968
<b>Edmunds</b>	275 Main Street	Elementary and Middle Schools	6.6	147,598	1903/1925
<b>Integrated Arts Academy (IAA)</b>	6 Archibald Street	Elementary School	2.2	44,405	1914
<b>IRA</b>	150 Colchester Ave	Administration and EEC Program	1.8	16,829	1974
<b>John J. Flynn</b>	1645 North Avenue	Elementary School	9.9	53,061	1955
<b>Lyman C. Hunt</b>	1364 North Avenue	Middle School	20.6	76,644	1958
<b>Property Services Building</b>	287 Shelburne Road	Property Services		12,244	
<b>Sustainability Academy (SA)</b>	123 North Street	Elementary School	2.3	35,015	1957

**Appendix B**

**Burlington School District**

**Enrollment Projections**

(Available in Excel Format)



**Appendix C**  
**Burlington School District**  
**Educational Program Standards**

(Available in Excel Format)

**Appendix D**  
**Burlington School District**  
**Inventory of School Buildings**

(Available in Excel Format)

**Appendix E**

**Elementary/Middle Schools**

**Space Needs Assessment – Current Programming/Student Distribution**

(Available in Excel Format)

**Appendix F**

**Elementary/Middle Schools**

**Space Needs Assessment – Plan Recommendations**

(Available in Excel Format)

**Appendix G**

**Burlington School District**

**FY 2017 – 2036 Capital Cost**

(Available in Excel Format)