



NEW HAVEN PUBLIC SCHOOLS

Operations Memorandum

To: New Haven Board of Education Finance and Operations Committee
From: Phillip Penn
Date: April 26, 2021
Re: **Recommended Vendor for Long-Term Facilities Study**

Contractor Name: Svigals & Partners

Contractor Address: 84 Orange Street, New Haven, CT

Is the contractor a Minority or Women Owned Small Business? No

Renewal or Award of Contract/Agreement? New award of agreement

Total Amount of Contract/Agreement and the Hourly or Service Rate: \$395,000 (low bid)

Contract or Agreement #: To be assigned by CONH Purchasing Department

Funding Source & Account #: Alliance Grant, Operations 25476106-56694

Key Questions: (Please have someone ready to discuss the details of each question during the Finance & Operations meeting or this proposal might not be advanced for consideration by the full Board of Education):

1. **What specific service will the contractor provide:**
2. **How was the contractor selected? Quotes? RFP? Sealed Bid or Sole Source? Please describe the selection process including other sources considered and the rationale for selecting this method of selection:** RFP 2020-12-1363. See additional Memorandum, presentation used in finalist round, and RFP response.
3. **If this is a renewal with a current vendor, has the vendor's performance been satisfactory under the existing contract or agreement?** N/A for this particular project, but Svigals was the architect for five of the schools currently in the NHPS portfolio.
4. **If this Contract/Agreement is a Renewal has cost increased? If yes, by how much?** N/A
5. **If this Contractor is New has cost for service increased from previous years? If yes, by how much?** N/A

6. **Is this a service existing staff could provide? Why or why not?** Highly specialized services across multiple disciplines and licensing requirements.



NEW HAVEN PUBLIC SCHOOLS

To: New Haven Board of Education Finance and Operations Committee
From: Phillip Penn
Date: April 26, 2021
Re: Long-Term Facilities Study Vendor Selection Process

The team reviewed the four responses we received to RFP 2020-12-1363 on the basis of quality of presentation and price. All four RFP responses were very complete and thorough. However, as the budget for the project was set at \$450,000, two respondents were eliminated on the basis of their proposal substantially exceeding the project budget.

The review team then met, through Zoom, with each of the two finalists for approximately one hour. The finalists were asked to respond to the following four questions in their presentation:

1. New Haven Public Schools intends to use the facilities study as a road map to guide future capital spending decisions around the infrastructure of our schools, and regarding potential school consolidations. Please discuss how your prior work experience and approach to this project would serve our needs?
2. Can you walk us through an estimated timeline for completing the project?
3. Can you explain in more detail what your fee covers, and what would be considered additional cost for similar projects?
4. How will you integrate suggestions on ways that NHPS can reduce the carbon footprint of the building going forward?

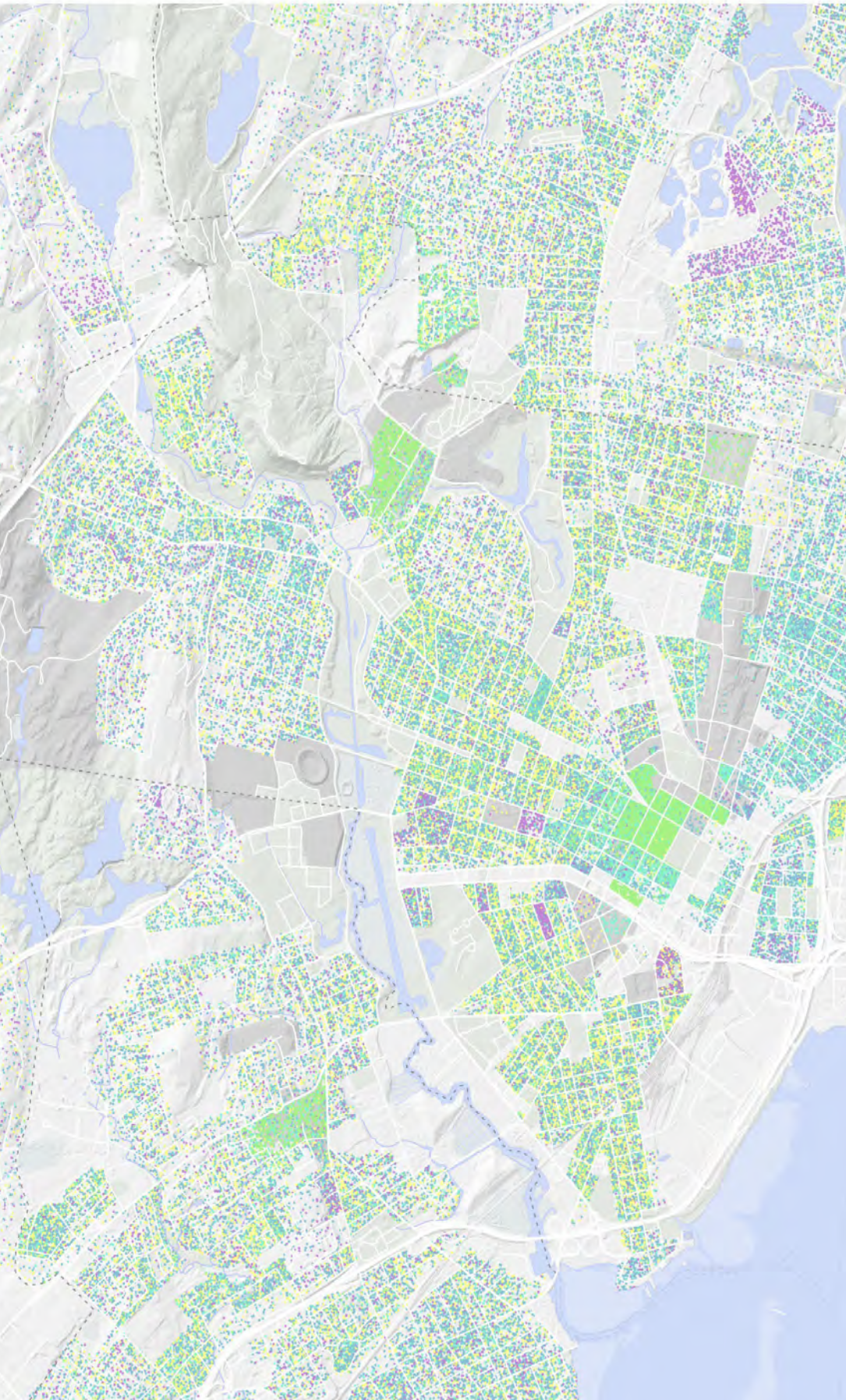
Each member of the review team then graded the presentation of each finalist for each question on a scale of 1 to 4, with 1 being the lowest and 4 being the highest. This produced the following scoring matrix of total scores:

Firm:	Question 1	Question 2	Question 3	Question 4	Total
Svigals	12	11	10	11	44
Tecton	9	12	8	11	40

The review team also noted the following regarding Svigals:

- Local firm, and all partner firms are based in Connecticut.
- Intimately familiar with NHPS; designed 5 of the schools and active in the City Energy Commission.
- More of an emphasis on urban school districts than the other finalist.

For the above reasons, the review team is recommending that we move forward with **Svigals & Partners** as the vendor for the Long-Term Facilities Planning Study at a proposed price of \$395,000. Notably, this was also the lowest-cost bid.



Proposal to Provide
Architectural Consulting Services
for:

**New Haven Public Schools
Long-Range Facilities
Planning Study**

City of New Haven

January 12, 2021

Main Office
84 Orange Street
New Haven, Connecticut 06510
203.786.5110 www.svgals.com

+Connecticut +Washington D.C. +Florida

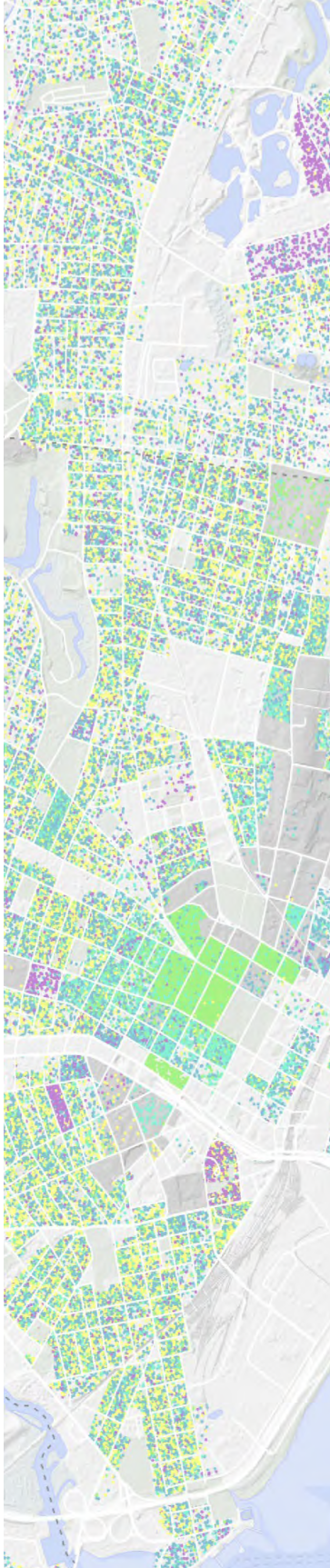


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G. Example Work Product

- + Waterbury Schools Final Report

January 12, 2021

Mr. Michael Fumiatti, Sr, Purchasing Agent
City of New Haven Bureau of Purchases
200 Orange Street, Room 301
New Haven, CT 06510

**RE: LONG-RANGE FACILITIES PLANNING STUDY for the NEW HAVEN SCHOOL DISTRICT
RFP# 2020-12-1361**

Dear Mr. Fumiatti and members of the Review Committee:

For more than two decades the City of New Haven has been at the forefront of the state-wide effort to provide quality educational programs and spaces for our communities. The New Haven School Construction Program, the Board of Education, and City leaders have always placed a high priority on issues of educational programming and planning, school security, energy efficiency, and operational efficiency while maximizing reimbursement from the State. We also share your Vision of a premier urban school district that will ensure equity, access, and success for all students – in school and life.

For this ambitious endeavor, **Svigals + Partners has teamed with The SLAM Collaborative** – bringing together **two of the state's most reputable K12 School design firms** – each having designed five facilities under the New Haven School Construction program. Given the scale of the project – with 42 operating school facilities, 4 ancillary buildings, and 54 Meadow Street – we have **assembled a team that has the capacity to effectively staff the scope of the project**, brings necessary expertise in all facets of the work, demonstrates the **ability to meet the schedule**, and **will recommend viable options** to the Board of Education. We understand the importance of this work and bring astute community sensitivity to potential discussions on re-purposing or consolidating New Haven's portfolio of facilities.

Relevant Team Experience and Expertise

Our team of experts – whom we have **worked with successfully on past projects** – will cover all aspects necessary for the comprehensive assessment of the District's current and future educational infrastructure needs:

Milone & MacBroom (MMI)

OLA Consulting Engineers (OLA)

D'Agostino Associates (DAA)

- + SLAM and MMI have **extensive master planning experience working together** for school districts across the state, including the **recently completed district-wide master planning studies** for the school districts of Waterbury, Hartford, Groton, and Ridgefield – all within the past five years.
- + As a sustainability expert with multiple MEP engineering teams, OLA has conducted numerous studies and assessments to guide the New York City School Construction Authority in **meeting energy conservation goals** and implementing strategies. In 2020, OLA provided four engineering teams to help perform an IAQ survey under a very aggressive schedule as part of their effort with other firms to survey all 1500 NYC schools.
- + With CT Schools facing a July 2020 deadline for submitting return to school plans, SLAM developed a **back-to-school operations toolkit for public education** as districts prepared for 2021. It provided an essential checklist of the facility/ site/ community use elements that need to be considered when creating an operations plan in this time of safe distancing. The complimentary toolkit was presented to CABE/CAPPS membership and is available for download on SLAM's website.
- + Both Svigals and SLAM maintain **strong relationships with the Office of School Construction Grant (OSCGR)** personnel and leads our teams in maintaining a current knowledge of policy and procedural changes within OSCGR, including state legislative actions affecting school construction projects.
- + SLAM Construction Services group brings unparalleled experience in "total project cost" budgeting for Public Education projects in Connecticut. Their CT K-12 project cost database and estimating group's experience will enable our team to **provide accurate cost / benefit analysis** of the master planning options. These professional estimators can provide capital improvement project budgeting as an additional service if requested.



New Haven Knowledge, Expertise, and Commitment

Our team's combined knowledge of the community, its neighborhoods, school programs, and its facilities will allow us to understand the issues faster and reach quick, accurate conclusions. Our broad knowledge of New Haven is exemplified through:

- + Engaged by the NH School Construction program, in 2006, SLAM developed the standards that guided the construction of all facilities in the program – giving our team **unparalleled insight into the quality level of construction** and system longevity that will better inform our assessments of facilities.
- + MMI's New Haven office worked with the City Plan Commission on the New Haven Zoning Update to rewrite standards for the Whalley, Grand, and Dixwell Avenue corridors. Additionally, over the last decade MMI has been assisting the City with Community Development and Housing and Urban Development (HUD) reporting. These efforts give our team a **broad understanding of neighborhood factors** impacting schools.
- + Through OLA's and SLAM's **involvement with the New Haven School Energy Committee**, and OLA's energy modeling analysis of 24 New Haven schools, our team uniquely understands New Haven's energy targets and the ways that facilities have achieved them or fallen short. We can hit the ground running in our identification of energy strategies for the future.
- + Svigals has been a "Made in New Haven" firm since its inception in 1983 – first located in Science Park and currently in Ninth Square. A full 30% of S+P employees are residents of New Haven, including Partner Jay Brotman and Principal Julia McFadden. Our principals and staff members maintain **leadership roles on many boards and councils of local organizations**, such as Continuum of Care, Connecticut Architecture Foundation, New Haven Promise, Ronald McDonald House of Connecticut, and the National Organization of Minority Architects of Connecticut.
- + Svigals has demonstrated an astute **sensitivity to community and stakeholder interests and involvement** through all their projects in New Haven. We began our advocacy of community engagement with Edgewood School – and have continued to our most recent successes with the Ninth Square mural project and the Botanical Garden Memorial to Victims of Gun Violence.

Educational Expertise

Both Svigals and SLAM have extensive experience in the planning and design of public schools in Connecticut at all grade levels. With teams of professionals dedicated specifically to understanding and advancing public education and addressing issues of diversity, equity, and inclusion, our project team will be led by Principal Julia McFadden, who will be committed to the success of your project. We offer the following:

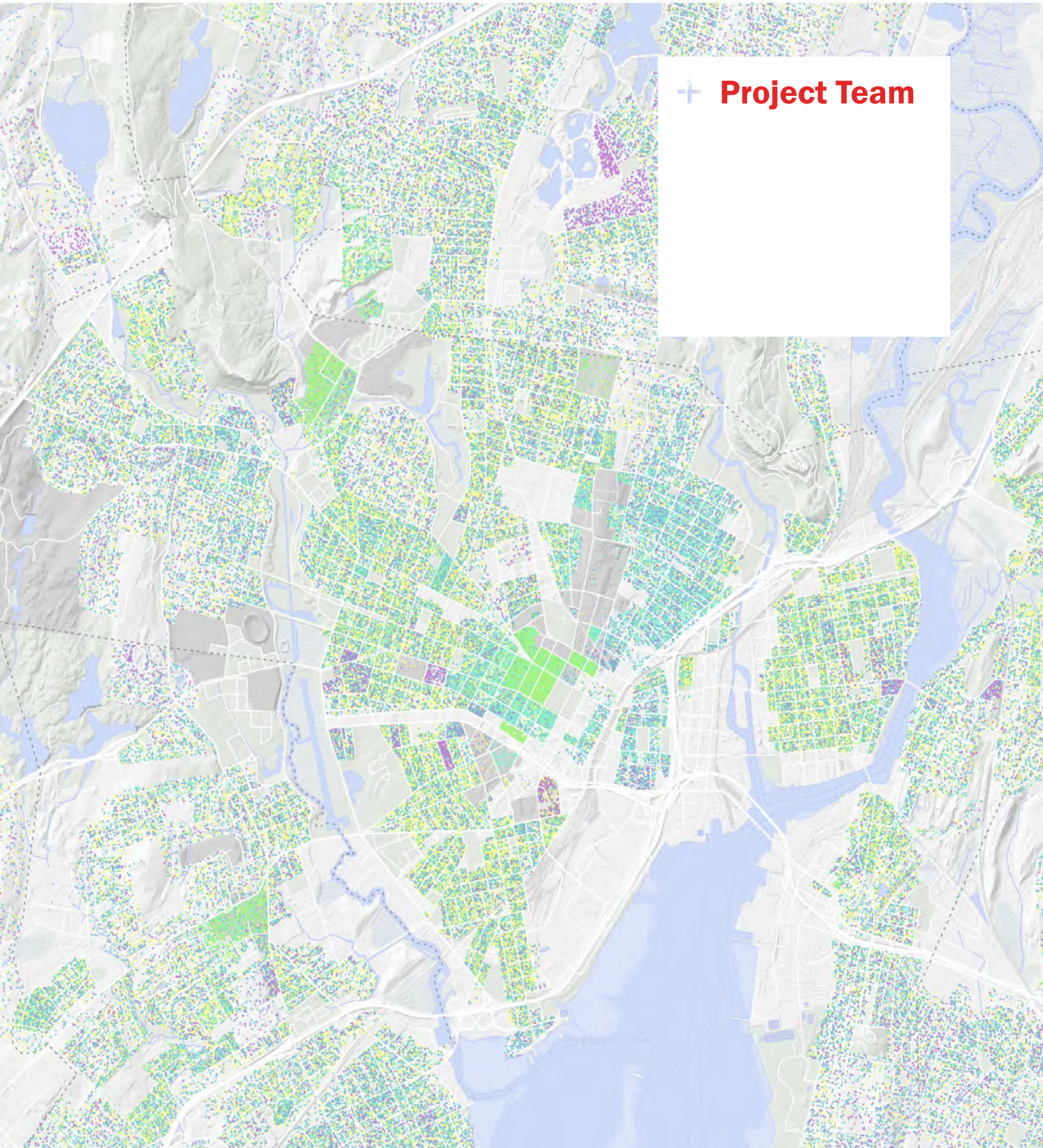
- + During Svigals' 35+ years and SLAM's 44+ years of professional architectural practice, each firm has developed an **Educational Design Studio dedicated to the assessment, programming, planning, and design of PreK-12 schools;**
- + Svigals and SLAM each have **staff certified as an ALEP (Accredited Learning Environment Planner);**
- + Beginning with Svigals' commission to design the new Sandy Hook school after the 2012 tragedy, Jay Brotman and Julia McFadden have become **national advocates for designs that efficiently and discreetly combine security concerns** with the animating features that promote socio-emotional learning and inspire students to learn.

We appreciate your consideration of our team's unique credentials and expertise presented herein and welcome the opportunity to work with the New Haven Public Schools administrative team on this exciting project.

Respectfully submitted,

Julia McFadden, AIA, ALEP
Principal, Svigals + Partners

Kemp A. Morhardt, AIA
Principal, The S/L/A/M Collaborative, Inc



+ **Project Team**

Team Organizational Chart

CITY OF NEW HAVEN

SVIGALS + PARTNERS
Architecture | Interiors
84 Orange Street
New Haven, CT 06510

Julia McFadden, AIA, ALEP
Project Manager / Educational Studio Leader
**Main Contact*

Jay Brotman, AIA
Partner-in-Charge

Katelyn Chapin, AIA
Project Architect

Omarys Vasquez, AIA, LEED AP
Senior Technical Architect

Educational Programming Review
Facility Analysis | Conceptual Re-purpose Study

 **SLAM**
The S/L/A/M Collaborative, Inc.
80 Glastonbury Boulevard
Glastonbury, CT 06033

Kemp Morhardt, AIA
Principal

Glenn Gollenberg, AIA
Principal

Amy Mund Christmas, ALEP
Academic Programmer/Planner

Kristen Furtak
Academic Programmer/Planner

Nathan Bernier, LEED AP
Senior Cost Estimator

Educational Programming Review
Facility Analysis | Conceptual Re-purpose Study
Cost Estimating | Capital Budget Projections

Milone & MacBroom
195 Church Street, 7th Floor
New Haven, CT 06510

Site | Civil | Traffic | Landscape
Demographics | Enrollment Projections

OLA Consulting Engineers, PC
50 Broadway, 2nd Floor
Hawthorne, NY 10532

MEP/FP Facility Analysis | Sustainability
Energy Performance Analysis

D'Agostino & Associates
477 Main Street, Suite 210B
Monroe, CT 06484

Technology



Firm Foundation

Svigals + Partners was established by the Yale-trained sculptor and architect Barry Svigals with the founding of the firm in 1983. Beginning with a focus on residential design, the office has since grown into a full-service architecture and interiors firm serving corporate, institutional, government, and non-profit clients.

Architecture + Art

The heart of S+P's philosophy is in creating meaningful art for their projects. Artwork is seamlessly included in the expression of the architectural design at its earliest stage. Creative and strategic alignment allows for every aspect of architecture to contribute in a meaningful way to the unique nature of each place and each client.

37 YEARS IN BUSINESS

WORLD'S TOP 10 MOST INNOVATIVE COMPANIES IN ARCHITECTURE AS NAMED BY FAST COMPANY

03 LOCATIONS CT, DC, FL LICENSED IN **12** STATES

EMERGING PROFESSIONAL FRIENDLY FIRM AWARD WINNER

85% REPEAT CLIENTS

45+ INDUSTRY AWARDS

CONNECTICUT CERTIFIED SMALL BUSINESS ENTERPRISE

34 STAFF MEMBERS

13 LICENSED ARCHITECTS

04 LEED AP CERTIFIED

02 NCIDQ CERTIFIED INTERIOR DESIGNERS

01 WELL AP CERTIFIED

OUR VISION: to create a world of prosperous, compassionate communities
OUR MISSION: to inspire our clients to join us in creating productive playgrounds

We focus on **knowing our clients and their user groups** to create spaces that foster productivity and encourage collaboration. Select clients/projects include:

Civic-Cultural

ACES The Little Theater
Allingtown Green
Botanical Garden of Healing for Victims of Gun Violence
Connecticut Center for Arts & Technology (ConnCAT)
DeLauro Family Table
Jewish Community Center of Greater New Haven
Knights of Columbus
New Britain Bridge

Healthcare

Cornell Scott-Hill Health Center
Planned Parenthood of Southern New England
UCONN Health Center
University of Connecticut
Yale-New Haven Hospital
Yale University



Learning Environments

Albertus Magnus College
Boston College
New Haven School District
Newtown Public School District
Norwalk Community College
SCSU, CCSU, ECSU
University of Connecticut
University of New Haven
Yale University

Residential & Mixed-Use

College & Crown Apartments
Fairfield University
Grist Mill Village
Hole in the Wall Gang Fund, Inc.
Lakeside Townhomes
Ronald McDonald House of Connecticut
The Atwood at University Commons
The Park View at University Commons

Science & Technology

Achillion Pharmaceuticals
Alexion Pharmaceuticals
Arvinas, Inc.
Metropolitan Museum of Art
Princeton University
University of Connecticut
Quantum Circuits, Inc.
Yale-New Haven Hospital
Yale University

Workplace

Biohaven Pharmaceuticals
Continuum of Care, Inc.
ESPN
Higher One, Inc.
PepsiCo, Inc.
Technolutions (CT & OR)
The Simon Konover Company
Wood Creek Capital Management
Yale University





Julia McFadden, AIA

Associate Principal / Education Sector Leader

A true consensus builder, Julia accelerates client collaboration and advances project goals through a sensitivity to perspectives and holistic problem-solving practices.

Education

University of Minnesota
 Master of Architecture
 Bachelor of Arts - Theatre

Registration

Licensed Architect in CT and MA

Professional Affiliations

American Institute of Architects (AIA)
 Association for Learning (A4Le)
 Professional Women in Construction

Speaking Engagements

Trauma-Informed Design: A Discussion on Environmental and Community Resiliency – AIA Minnesota, 2019

Designing for Security and Socio-motional Learning – NYC DDC, 2019

CPTED Principles of Security Design at Sandy Hook School - InfraGard San Diego, 2018

Crossroads of Sustainability and Security for Sandy Hook School - GreenBuild, 2016

Making a Place for Creativity - UNH Women's Leadership Conference 2016

Balancing Nurturing K12 Environments & Security Design - Trespa Design Centre NY, 2014

The Power of Collaboration: Improving School Design through Stakeholder Creativity - CEFPI Conference, 2013

Interviews + Publications

ArchitectureBoston - *See Me, Teach Me, Heal Me*

High Profile Build Better podcast - *Productive Playgrounds & Biophilia*

WNPR Where We Live - *Response, Relief, and Rebuilding in the Wake of Disaster*

SPM online - *What are Stem Schools' Facility Needs?*

Community Engagement

Ronald McDonald House of CT - *Advisory Board Member*

New Haven Promise - *Business Council*

**Work completed prior to joining Svigals + Partners*

With more than twenty years of varied architectural and planning experience, Julia excels in orchestrating multiple aspects of a project with an attention to clear communications and transparency for the design team, client, and contractor.

Her project experience includes successful and inspirational leadership of:

- + Fast-track schedules with early design packages
- + Site-constraints & environmental challenges
- + Leveraging tight budgets
- + Community involvement for sensitive projects: Sandy Hook School and the Botanical Garden memorial

Julia has developed particular expertise in facilitating and leading user and community programming workshops. She artfully steers the workshop process and analysis toward well-defined construction priorities while simultaneously identifying design opportunities for unique and inspired expressions of the client's mission and goals.

K-12 School Design

- + Engineering & Science University Magnet School – New Haven Schools, CT
- + Sandy Hook School – Newtown Schools, CT
- + The Little Theatre Performing Arts Interdistrict Magnet School – ACES, CT
- + Goodwin University Early Childhood Magnet School – East Hartford, CT
- + Discovery Interdistrict Magnet School – Bridgeport, CT

K-12 School Planning

- + Conceptual Design Renovation Study | Cheshire Middle School, Winstanley Enterprises – Cheshire, CT
- + Site Feasibility Study STEM Middle/High School – New Haven Schools, CT
- + Magnet High School Site Selection Study – New Haven Schools, CT
- + High School in the Community Conceptual Designs – New Haven Schools, CT
- + Amistad High School Site Studies & Conceptual Designs – Achievement First, New Haven, CT
- + Prince & Welch Schools Feasibility Study – Achievement First, New Haven, CT
- + Ezra Academy Jewish PreK to High School Program Study – Woodbridge, CT
- + District Consolidation Study – Portland Public Schools, Portland, ME*
- + Cornelia Elementary Expansion Study – Edina Public Schools, Edina, MN*
- + Rockford Schools Master Planning – Rockford School District, MN*

Higher Education

- + University of Hartford | New Residence Hall
- + University of New Haven | Bergami Center for Science, Technology & Innovation



Jay Brotman, AIA
Managing Partner

A leading authority on master planning, design and construction, Jay directs Svigals + Partners' academic projects including long-range planning and individual project construction.

Education

University of Texas
Bachelor of Architecture

Registrations

Licensed Architect in CT, MA, NY, RI, PA, FL, VT, and TX

NCARB

Professional Affiliations

American Institute of Architects (AIA)

Speaking Engagements

Stand Against School Violence, panelist
– *87th Meeting of US Conference of Mayors, 2019*

Safer Schools through Design, panelist -
SXSW EDU, 2019

Creating Safe and Nurturing Schools
through Design - *Julie Rose Show - BYU/
NPR, 2019*

Best Practices for School Building
Security, Testimony - *President's Federal
Commission on School Safety, 2018*

Creating Cross-Disciplinary Learning
Spaces in Dated Academic Buildings -
SCUP Annual Conference, 2018

Making Meaningful Architecture:
Community Engagement in Sandy Hook
and Beyond - *AIA Convention, 2015*

Creating a Secure Learning Environment
without Impacting the Educational
Mission - *Emergency & Disaster Planning
for Colleges, Universities and K12
Schools, Toronto, 2014*

Publications

AIA Learning by Design - *Creating Safe
and Nurturing Schools through Design*

WIRED, online - *AIA Blueprint for Better:
Designing a Safer School*

Fast Company - *The World's Top Ten Most
Innovative Architecture Firms*

Contractor Magazine - *Green Schools:
Inter-District Discovery Magnet School*

Community Engagement

Connecticut Architecture Foundation -
President

New Haven Regional Contractors Alliance
Continuum of Care - *Board Member*

Tennis Foundation of Connecticut

With more than 37 years of professional experience, Jay is a planning and design leader at Svigals + Partners as well as a leading authority on master planning and academic facility design.

Jay has a thought-provoking approach to architecture that inspires his clients and colleagues; he has led both the planning and design efforts for a broad spectrum of projects resulting in innovative research facilities, campus transformations and the retrofit of high-performance buildings for prominent institutions and corporations. His responsibilities include project formulation and planning, design and construction phase services, and strategic business development.

Jay's commitment to design excellence combined with his ability to orchestrate a collaborative design process results in built environments that are both functionally responsive and contextually sensitive - balancing both functional needs with human needs.

K-12 School Design

- + Engineering & Science University Magnet School – New Haven Schools, CT
- + Sandy Hook School – Newtown Schools, CT
- + The Little Theatre Performing Arts Interdistrict Magnet School – ACES, CT
- + Goodwin University Early Childhood Magnet School – East Hartford, CT
- + Discovery Interdistrict Magnet School – Bridgeport, CT
- + Jonathan E. Reed School – Waterbury, CT
- + Christopher Columbus Family Academy – New Haven, CT
- + L.W. Beecher School – New Haven, CT
- + Connecticut Center for Arts and Technology – New Haven, CT
- + Goodwin University Elementary School – East Hartford, CT

K-12 School Planning

- + Site Feasibility Study STEM Middle/High School – New Haven Schools, CT
- + Magnet High School Site Selection Study – New Haven Schools, CT
- + Jonathan E. Reed School Site Study – Waterbury, CT
- + Interdistrict Discovery Magnet School Site Study
- + Christopher Columbus Family Academy New/Renovate Study – New Haven, CT
- + L.W. Beecher School Feasibility Analysis & Programming Study – New Haven, CT
- + Goodwin University | Willowbrook School Grades 1-5 Program/Expansion Study
- + Ezra Academy Jewish PreK to High School Program Study – Woodbridge, CT

Higher Education

- + University of New Haven - Bergami Center for Science, Technology & Innovation



Katelyn Chapin, AIA

Associate

Katelyn's attention to detail coupled with her graphic ability to bring a design to life contributes to realizing the client's vision and exceeding project goals.

Education

Roger Williams University
Bachelor of Science / Master of Architecture, magna cum laude
 Minor: *Art and Architectural History, Photography / Digital Media*

Semester Abroad - *Florence, Italy*

- Tau Sigma Delta Honor Society
- Alpha Chi National Honor Society
- Phi Beta Delta Honor Society

Registrations

Licensed in Massachusetts

National Council of Architectural Registration Boards (NCARB)

Training & Accreditations
 Autodesk Certified Revit training

Professional Affiliations

American Institute of Architects (AIA)

Speaking Engagements

Mini MBA: Mastering the Business of Architecture for Emerging Professionals - *AIA National Conference, 2019*

Creating Cross-disciplinary Learning Spaces in Dated Academic Buildings - *SCUP National Conference, 2018*

Creating Cross-disciplinary Learning Spaces in Dated Academic Buildings - *SCUP North Atlantic Regional Conference, 2018*

Community Engagements

AIA Connecticut Young Architects Forum - *Community Director*

AIA National Young Architects Forum - *Young Architect Regional Director (YARD) of New England*

AIA Connecticut - *Women in Architecture Committee Member*

AIA Connecticut - *Transition Committee Member*

AIA Connecticut - *Emerging Professionals Committee Member*

Habitat for Humanity

Awards

Emerging Architect - *AIA Connecticut, 2014*

Katelyn's involvement in the strategic planning, programming, and design of spaces and buildings of all types unfolds creative opportunities in every project. She enjoys brainstorming with both clients and users while evaluating existing conditions and identifying where value can be added. Her understanding of key project components – and their relationship to each other and to the overall building – provides for efficiencies in the design and execution of construction.

Katelyn's keen eye for graphic design, paired with her verbal and graphic communication skills, elevates her ability to elicit discussion to build consensus and understanding for each project. She is well versed in all architectural design programs, and has nimbly worked across our higher education, K12 and corporate sectors.

Experience:

- + University of New Haven | Bergami Center for Science, Technology & Innovation Center
- + Albertus Magnus College | East Hartford Academic Building Renovation
- + Engineering & Science University Magnet School – West Haven, CT
- + Sandy Hook School – Newtown, CT
- + Innovative Display & Design Headquarters – Milford, CT
- + Innovative Display & Design Office Relocation – Clinton, CT
- + Yale University | Sterling Hall of Medicine, I-Wing 136-138 Aquatics Expansion
- + Ezra Academy Jewish PreK to High School Program Study – Woodbridge, CT
- + Silver Lining at Yale New Haven Hospital Children's Psychiatric Inpatient Service – New Haven, CT
- + The Little Theatre Performing Arts Interdistrict Magnet School – ACES, CT
- + Sportech, Inc. Office – New Haven CT



Omarys Vasquez, AIA, LEED AP

Associate

With a sharp eye for detail, Omarys takes a proactive approach in finding solutions to design challenges.

Education

Pratt Institute
Bachelor of Architecture

Registrations

Licensed in Connecticut

Training & Accreditations

LEED Accredited Professional

Professional Affiliations

American Institute of Architects (AIA)

National Organization of Minority Architects (NOMA)

Community Engagement

AIA Connecticut - *Women in Architecture Committee member*

NOMA Connecticut - *Founding member and Treasurer*

AIA Connecticut - *Justice, Equity, Diversity, and Inclusion (JEDI) Committee member*

ACE Mentor Program

Omarys' compassionate nature allows for fluid collaboration between tenant, client, consultants and construction management and she takes personal pride in assuring that her client's design intent is carried throughout the project. She excels at communicating and coordinating various disciplines with successful experience leading projects from schematic design through construction administration. Always excited to expand her knowledge and take on new projects, she has been associated with multiple project types including, but not limited to multi-family, hospitality, institutional, commercial, academic, transportation and municipal.

As a founding member of the soon-to-be-formed Connecticut Chapter of the National Organization of Minority Architects (NOMAct), coupled with her experience growing up in public housing project for 15 years, Omarys' desire is to enhance the built environment to be more equitable, inclusive, and diverse. Experienced in rural and urban housing design, her passion extends onto exploring opportunities for providing enjoyable living spaces and implementing collaborative and innovative designs.

Experience

- + Sandy Hook School - Newtown, CT
- + Yale Medicine Administration at 2 Science Park - New Haven, CT
- + Yale University | 25 Science Park - New Haven, CT
- + Yale-New Haven Health | Strategic Business Office - New Haven, CT
- + Yale University | On-Call Rapid Response Contract - New Haven, CT*
- + UCONN Health Center Clinical Building - Storrs, CT
- + UCONN | fMRI Clinic, David C. Phillips Communications Sciences Building - Storrs, CT
- + UCONN - Storrs Inter-modal Center*
- + Cornell Scott-Hill Health Center | Q-House - Ansonia, CT
- + Community Mental Health Affiliates | Executive Offices & Consolidation - New Britain, CT
- + College & Crown - New Haven, CT
- + Ronald McDonald House of Connecticut - New Haven, CT
- + The Atwood Apartments - West Haven, CT
- + Adaptive Reuse Historic Building (Private Client) - New London, CT*
- + Harbor Towers Mixed- Use Renovation & Addition - Meriden, CT*
- + West Haven Train Station - West Haven, CT*
- + Metro North Train Stations Canopy Upgrades - Stratford, Glenbrook, Springdale, and Bridgeport, CT*
- + Metro on Crown, Metro 280 - New Haven, CT

**Work completed prior to joining Svigals + Partners*

CONTACT INFORMATION/FIRM PROFILE



SLAM OFFICES

California (Los Angeles)

8607 Venice Blvd.
Los Angeles, CA 90034
Phone: 310- 559-4717
Email: mail@slamcoll.com

Colorado (Denver)

1900 Grant Street, Suite 800
Denver, CO 80203
Phone: (720) 946-0276
Email: mail@slamcoll.com

Connecticut (Glastonbury)

80 Glastonbury Boulevard
Glastonbury, CT 06033-4415
Phone: 860-657-8077
Email: Mail@slamcoll.com

Florida (Orlando)

100 East Pine Street, Suite 300
Orlando, FL 32801
Phone: (407) 992-6300
Email: mail@slamcoll.com

Georgia (Atlanta)

675 Ponce De Leon Ave, NE
Suite 4100
Atlanta, GA 30308-1829
Phone: (404) 853-5115
Email: atlantamail@slamcoll.com

Iowa (Iowa City)

125 S Dubuque St, Suite 500
Iowa City, IA 52240
Phone: (319) 354-4700
Email: mail@slamcoll.com

Massachusetts (Boston)

250 Summer Street
4th Floor
Boston, MA 02210-1135
Phone: 617-357-1800
Email: bostonmail@slamcoll.com

New York (New York)

575 5th Avenue
15-116
New York, NY 10017
Phone: (860) 989-6942
Email: mail@slamcoll.com

Pennsylvania (Philadelphia)

1880 JFK Boulevard, Suite 1301
Philadelphia, PA 19103
Phone: (215) 564-9977
Email: mail@slamcoll.com

www.slamcoll.com

NAME & ADDRESS OF FIRM

The S/L/A/M Collaborative, Inc. (SLAM)
80 Glastonbury Boulevard
Glastonbury, CT 06033
Main: (860) 657-8077
Fax: (860) 657-3141

CONTACT PERSON

Kemp A. Morhardt, AIA
Principal & Officer
Direct Phone number: (860) 368-4221
E-Mail: kmorhardt@slamcoll.com

OVERVIEW/HISTORY

SLAM is a national leader in the planning and design of Education, Corporate, Healthcare, Justice, and Sports markets. As a multi-discipline design firm with over 270 dedicated professionals and more than 44 years of experience, SLAM brings a high level of expertise to our clients.

Originally established as a New England-based firm with offices in Glastonbury, CT and Boston, MA, SLAM has grown into a national practice with 7 additional full-service offices across the country (see side bar at left). Our history is characterized by both the passion for thoughtful, responsive design and the commitment to merge creative talented people, from diverse perspectives, as a means to create success.

The firm was formed in 1976, when Stecker/LaBau Architects came together to consolidate and expand their practice. Over the next 44 years, SLAM joined forces with several additional firms to enhance our level of expertise and resources as well as adding structural engineering, landscape architecture, and construction management divisions to our in-house services

SLAM is organized as a Corporation in the State of Connecticut and is registered in 27 other states. We are governed by a Board of Directors led by a Chairman and consisting of 8 Principals.

IN-HOUSE SERVICES

A fully-integrated firm qualified to take responsibility for building projects from design through construction, SLAM offers the following services:

- Architecture
- Interior Design
- Structural Engineering
- Landscape Architecture/Site Design
- Programming/Planning
- Master Planning/Feasibility Studies/Facility Assessments
- Space Planning/Analysis
- Furniture and Equipment
- Code Analysis/Updating
- Cost Estimating
- Construction Management



KEMP A. MORHARDT, AIA

Principal



EDUCATION

B. Arch, University of North Carolina at Charlotte
B. S., Civil Engineering, University of Connecticut
A.S. Architectural Technology, Capital Community College

REGISTRATIONS

CT, NY
NCARB

MEMBERSHIPS

American Institute of Architects
American Society of Civil Engineers (ASCE)
Greater Hartford Jaycees, Volunteer
American Red Cross, Volunteer
Board of Directors for First Church Nursery Schools
WHYBL, Coach
WHGSL, Coach

AWARDS & HONORS

2020 CT CREW, Weaver HS - Best in Class Education
2012 CEFPI, Northeast Region, Project of Distinction Award, Metropolitan Business Academy
2011 Real Estate Exchange, Best in Class, Educational Category, Metropolitan Business Academy
2011 CT Building Congress, Project Team Award of Merit, K-12 Schools, Metropolitan Business Academy
Connecticut CREW for Weaver High School - Best in Class Education

Kemp is a Principal of the firm and the leader of the Connecticut K-12 practice. He is a member of the Education Studio leadership team, with a focus on the development of the K-12 and Higher Education markets. He serves on SLAM's board of directors, and the board of directors for SLAM's construction services group. With over 25 years of architectural and engineering design experience on a broad range of institutional and civic projects, he brings a unique perspective to projects with a personal commitment to clients and project teams. As an Architect, his ability to listen and understand a client's vision and expectations fosters close collaboration in transforming their ideas into built form. Kemp's extensive project management experience and meticulous attention to detail has helped SLAM build an impeccable track record of delivering complex projects on-schedule and frequently under budget, without sacrificing scope, design or construction quality. His commitment to sustainable design, especially in the areas of environmental stewardship, energy efficiency and reduced life cycle costs, yields significant dividends to our clients in the form of a reduced carbon footprint and long-term operational savings.

GROTON SCHOOLS LONG-RANGE FACILITIES PLAN

Comprehensive analysis of the district enrollment projections, elementary, middle school and high school facility assessments and test fit studies in support of potential re-districting scenarios. SLAM's role was to inventory and evaluate the existing facilities in the context of the district educational specifications and prepare site and building test fits (feasibility studies) for new construction scenarios as well as prospective reuse scenarios (e.g. middle school converted to elementary). The project scope also included cost modeling for multiple facility upgrade/reuse scenarios to provide town leaders with the necessary decision making information and data for presenting the project for referendum.

HARTFORD PUBLIC SCHOOLS, FACILITY MASTER PLAN

Inventory, assessment and capacity analysis of all the schools in the Hartford district; the work also includes the development of planning options for facilities best use moving into the future to address changing enrollment dynamics in the context of magnet choice and open choice opportunities in the Greater Hartford region.

RIDGEFIELD PUBLIC SCHOOLS UTILIZATION, PROGRAM ANALYSIS, AND PLANNING STUDY

District-wide inventory, utilization, and planning study for Ridgefield public schools encompassing 6 elementary schools, and 2 middle schools

WATERBURY PUBLIC SCHOOLS, FACILITY UTILIZATION & REDISTRICTING STUDY

Study to analyze enrollment needs, inventory existing school facilities, and develop a plan to align demographics with school facility needs, space requirements, and education vision for the district's preK-8 grade system

NEW CANAAN MIDDLE SCHOOL, FEASIBILITY STUDY

Study for 1200-student middle school which analyzed room utilization, classroom count scenarios using enrollment projections, and determined current and future programs with space demands; developed a feasibility study for a 12-classroom addition including STEM classrooms.

REGION 12 SCHOOL DISTRICT, FEASIBILITY STUDY AND MASTER PLAN

Master planning services in evaluating 3 existing K-5 schools, as well as the viability of a consolidated K-5 elementary school on a separate site; feasibility study of a prospective site for a new regional elementary school; update consisting of probable cost estimates for new PreK-5 and PreK-12 facilities.

METROPOLITAN BUSINESS ACADEMY

86,000-GSF, 4-story, business-themed, interdistrict magnet high school for 400 students, grades 9-12. Earning an Energy Star rating, this school is the recipient of 2012 CEFPI, Northeast Region, Project of Distinction Award.

WENDELL CROSS ELEMENTARY SCHOOL, SITE STUDY

Site evaluation and planning services to provide alternative planning solutions for remediation of existing circulation issues and identification of an optimal retrofit design solution which will introduce enhanced vehicular circulation; pedestrian circulation; drop-off/pick-up routines; and/or traffic calming measures



GLENN R. GOLLENBERG, AIA

Principal



Glenn is a Principal of SLAM and has been with the firm since 1994. Glenn is the President of AIA Connecticut. He was appointed by Governor Malloy of Connecticut to the School Building Project Advisory Council and is a past member of AIA/CT Building and Performance and Regulations Committee. In recent years, Glenn participated in the High Performance Schools Initiative for the Connecticut Green Building Council, and contributed to the discussion on school safety through testimony to the Governor's Commission on Sandy Hook. As Principal-in-Charge of some of the firm's most important projects, he coordinates all team activities and integrates all project phases from programming and design through construction. His hands-on management expertise ensures project continuity, multidisciplinary collaboration, and team accountability.

EDUCATION

M. Arch and B. Arch. - Georgia Institute of Technology

REGISTRATIONS

CT, MA, PA, RI, AZ
NCARB

MEMBERSHIPS

American Institute of Architects (AIA)
AIA Connecticut, Board of Directors
Appointment by Governor Malloy
Member of the School Building Projects
Advisory Council, Sept., 2015
AIA/Connecticut, Building and Performance
and Regulations Committee, Past Member
Massachusetts Certified Public Purchasing
Official - School Design (MCPPO)

COMMITTEES

Achieve Hartford!, Community Engagement
Committee, member of Board of Directors
Achieve Hartford!, Community Engagement
Committee, Advisory Group Member
Job Fair Hartford

EAST PROVIDENCE HIGH SCHOOL, FEASIBILITY STUDY

Evaluation of both the physical condition of this 1450-student high school as well as its educational plan as compared to the 21st century school model

MANCHESTER HIGH SCHOOL FIELD HOUSE STUDY

Feasibility study and cost estimates for construction of an indoor multi-use athletic facility for the high school. Facility to be used for indoor track, basketball, wrestling, sports practice and school-wide gatherings. The client desired an air bubble-type facility, conference rooms, gymnasium (3 full courts); indoor track; lounge/concession area, and associated spaces.

CATHEDRAL HIGH SCHOOL/ST. MICHAEL'S ACADEMY, FACILITY ANALYSIS

Tornado damage analysis for the Town of Springfield to determine scope of work necessary to restore the facilities to safe and healthy conditions

CITY OF HARTFORD, BLUE HILLS RECREATIONAL FACILITY STUDY

Study for the City of Hartford to investigate parcels in the Blue Hills neighborhood as a site for a district-wide athletic fieldhouse; project included planning and programming a venue for track and field events, indoor track, basketball, and volleyball, as well as to function as assembly or convention space and open to the community for public use.

PAWTUCKET SCHOOL DISTRICT, MASTER PLAN AND STAGE II SUBMISSION

Development of a comprehensive master plan for all 16 schools in the Pawtucket school district as well as Stage II submission (through Schematic Design) for 4 schools: Shea High School, Tolman High School, Baldwin Elementary School, and Winters Elementary School, as well as district-wide health and safety upgrades.

PROVIDENCE SCHOOLS DISTRICT-WIDE NEEDS ASSESSMENT/IMPLEMENTATION

Teaming with Studio JAED, SLAM conducted a system-wide program analysis and development of materials and equipment standards for 40+ schools, and 3.9M square feet. The project included a comprehensive analysis of the physical building, mechanical, electrical, and plumbing systems and supporting components; the development of cost estimates for required work; and a preliminary capacity analysis based on currently defined strategic goals. The City of Providence Public Schools used the assessment data to develop a long-range facilities plan.

MSBA ACCELERATED REPAIR PROGRAM

SLAM was engaged to produce existing conditions documents, investigate/analyze the challenges of replacing roofs and boilers, and develop the Schematic Design Package of recommended solutions for consideration by the MSBA for 11 school districts (29 schools). The overall goal was to provide substantial energy conservation.

METROPOLITAN BUSINESS ACADEMY

86,000-GSF, 4-story, business-themed, interdistrict magnet high school for 400 students, grades 9-12. Earning an Energy Star rating, this school is the recipient of 2012 CEFP, Northeast Region, Project of Distinction Award.

CELENTANO BIOTECH, HEALTH, AND MEDICAL MAGNET SCHOOL

101,000-SF renovation/addition for 554 students, grades PreK-8, including new library, gymnasium, and cafeteria/stage, as well as special education classrooms; design responds to the scale and architecture of the historic residential neighborhood. Design Award: 2006 Citation Award, Design Share Annual International Awards Program.



AMY MUND CHRISTMAS, ALEP

Academic Programmer/Planner



Amy, an Associate Principal at The S/L/A/M Collaborative, has been with the firm for 24 years. She specializes in education work, particularly planning and program development. She is an expert and was key in developing the firm's Outcomes-Based Planning and Programming, a unique metric designed to help education clients assess the value of complex outcomes. Amy is one of only a few Accredited Learning Environment Planners in the State of Connecticut.

EDUCATION

B. Arch. - Wentworth Institute of Technology

MEMBERSHIPS/CREDENTIALS

Accredited Learning Environments Planner (ALEP)

Society for College and university Planning, e and university Planning (SCUP): Planning Institute Alumna (2016-2018)

RECENT PRESENTATION

Mechanical Engineering Chair Summit, August 2019 "Shared and Collaborative Spaces"

ACUI Regional Conference, November 2018 "Changing Student Culture Through Renovated Student Center Space: Scalpel vs. Sledge Hammer"

A4LE LearningSCAPES National Conference, October 2017, A4LE Northeast Conference, March 2017 "Classroom to Career: When You Get to a Fork in the Road, Take It"

SCUP 50 National Conference, July 2015: "How Curriculum and Space Can Learn From Each Other"

AIA National Conference, May 2012: "How People Learn: Connecting Research on Learning to Planning, Designing, and Assessing 21st Century Learning Spaces"

IFMA Facility Fusion Conference, March 2011: "How Does Your Campus Measure Up? Assessing your campus' ability to accommodate the new learning environments"

PUBLICATIONS

Learning Spaces Collaboratory: Planning for Assessing 21st Century Spaces for 21st Century Learners

REGION 12 SCHOOL DISTRICT, FEASIBILITY STUDY AND MASTER PLAN

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CELENTANO BIOTECH, HEALTH, AND MEDICAL MAGNET SCHOOL, NEW HAVEN, CT

101,000-SF renovation/addition for 554 students, grades PreK-8, including new library, gymnasium, and cafeteria/stage, as well as special education classrooms; design responds to the scale and architecture of the historic residential neighborhood. Design Award: 2006 Citation Award, Design Share Annual International Awards Program.

CREC PUBLIC SAFETY ACADEMY

New 150,000-SF state-of-the-art facility for 700 students, grades 6-12; goal is to prepare students for a career in public safety and community services, including police, fire, and emergency medical services. Project designed to meet CT High Performance Building standards, LEED Gold equivalent.

EAST HAMPTON HIGH SCHOOL

121,000-SF renovate-as-new, phased project for 580 students in grades 9-12. Project includes 93,000-SF renovation of existing space and a 28,000-SF addition to house a new science wing, lecture hall, and expanded cafeteria and gymnasium areas. Project also included the design of major site improvements to the main entrance, student drop off areas, overall vehicular and pedestrian circulation, on-site solutions for sustainable drainage and enhance the connection and experience of the existing athletic facilities

GROTON MIDDLE SCHOOL

New 154,000-SF middle school for 950 students in grades 6-8; school will follow the International Baccalaureate Middle years Programme and include STEM & Arts and Humanities pathways.

JOURNALISM & NEW MEDIA HIGH SCHOOL

53,000-SF addition and 25,000-SF renovation (renovate-as-new) to provide a school for 400 students in grades 9-12. The new facility will deliver cutting-edge curricula and innovative programs that will build skills in critical thinking and creative media production.



KRISTEN FURTAK

Academic Programmer/Planner



EDUCATION

B. Arch. - Wentworth Institute of Technology

MEMBERSHIPS

Society for College and University Planning (SCUP)

Kristen has been with The S/L/A/M Collaborative since 2007 and specializes in programming and planning for educational facilities, particularly those in Public and Private Education. She will work closely with the various users to understand your unique needs, transform those into programming objectives and tabulations, and then collaborate with the balance of the design team during the planning process to create schemes that clearly accommodate the identified space requirements and required relationships.

HARTFORD PUBLIC SCHOOLS, FACILITY MASTER PLAN

Inventory, assessment and capacity analysis of all the schools in the Hartford district; the work also includes the development of planning options for facilities best use moving into the future to address changing enrollment dynamics in the context of magnet choice and open choice opportunities in the Greater Hartford region.

RIDGEFIELD PUBLIC SCHOOLS UTILIZATION, PROGRAM ANALYSIS, AND PLANNING STUDY

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PROVIDENCE SCHOOLS DISTRICT-WIDE NEEDS ASSESSMENT/IMPLEMENTATION

Teaming with Studio JAED, SLAM conducted a system-wide program analysis and development of materials and equipment standards for 40+ schools, and 3.9M square feet. The facilities assessment program included a comprehensive analysis of the physical building, mechanical, electrical, and plumbing systems and supporting components; the development of cost estimates for required work; and a preliminary capacity analysis based on currently defined strategic goals. The City of Providence

JAMES L. MCGUIRE ELEMENTARY SCHOOL

Demolition, abatement, site development and construction of a new 62,000-SF, K-5 Elementary schools for 450 students in North Providence, RI

STEPHEN OLNEY ELEMENTARY SCHOOL

Demolition, abatement, site development and construction of a new 62,500-SF, K-5 Elementary schools for 450 students in North Providence, RI

GILMARTIN PREK-8 SCHOOL

Programming, planning, and design of a new 80,000-SF PreK-8, 550-student facility, which meets the City's goals for high performance schools through building orientation, day-lighting, material selection, and building systems.

CREC PUBLIC SAFETY ACADEMY

New 150,000-SF state-of-the-art facility for 700 students, grades 6-12; goal is to prepare students for a career in public safety and community services, including police, fire, and emergency medical services. Project designed to meet CT High Performance Building standards, LEED Gold equivalent



NATHAN BERNIER, LEED AP

Senior Cost Estimator



Nate is a Senior Estimator for S/L/A/M Construction Services and an Associate of the Firm. He has over 18 years of experience as an estimator with a high success rate of working with designers and Owners to value engineer projects within their respected budget. Nate works collaboratively with the SLAM design team developing conceptual design budgets, evaluating constructability issues, preparing cash flow analysis and leading value engineering. His work on numerous pre-construction efforts on multiple projects, has resulted in cost reductions of 4-15%.

EDUCATION

A. S. Architectural Design, Three Rivers Community College

B.S. Construction Management, Central CT State University

M. S. Construction Management, Central CT State University

CERTIFICATIONS

LEED AP

PROFESSIONAL QUALIFICATIONS

Adjunct Professor, Three Rivers Community College

OX RIDGE ELEMENTARY SCHOOL

Site logistics, phasing, schematic design estimating services and reconciliation with the construction manager for a new 105,000-SF, PreK-5 elementary school for 465 students. The new school is to be built on the existing site while remaining operational.

THE FREDERICK GUNN SCHOOL, COMMUNITY & ARTS CENTER

Schematic and design development estimates for a new 30,000-SF community and arts center with 500-seat theater, visual arts studios, music studios, digital arts classrooms, dance studio and gallery/display spaces.

CANTERBURY SCHOOL

Design of a new two-story, 22,000-SF innovative center for 350 students to serve as signature facility for the campus; includes maker spaces, flexible, multi-use classrooms, and student center with cafe

PROVIDENCE COLLEGE, SCIENCE BUILDING COMPLEX

Estimating and logistics planning services for a 36,000-SF addition and 70,000-SF multi phased interior renovations. Initial schematic estimates were done for the addition and all phases of renovations. After a redesign of the addition to bring project into budget, another round of estimates were performed during the SD and DD phases.

WESTPORT-WESTON FAMILY YMCA

102,000-SF master planning estimates included cost analysis for exterior site improvements and multiple building addition options ranging from 5,600 - 37,000-SF to the new facility and existing campus.

PHILLIPS EXETER ACADEMY - NEW STUDENT DORMITORY

Performed schematic and design development estimates for the design of a new 44,000-SF 4-story dormitory building.

SPRINGFIELD COLLEGE - HEALTH SCIENCES BUILDING

Performed schematic, design development estimates and cost analysis for a new 80,000-SF 4-story Health Sciences Building.

UNIVERSITY OF HARTFORD - CENTER FOR STUDENT SUCCESS

Performed design development estimates and value engineering to support the design build efforts of a xx-SF addition to the Student Union Building.

UNIVERSITY OF NOTRE DAME - REMICK HALL

Schematic and design development estimating services and reconciliation with the construction manager, which brought the project back within the original budget, for an 44,000-SF building.





FIRM PROFILE

Milone & MacBroom is a privately-owned, multidisciplinary consulting firm that has offered professional services across a wide range of disciplines, serving both public agencies and private companies, since 1984.

Milone & MacBroom combines the expertise of engineers, environmental scientists, landscape architects, planners, and support staff to apply a collaborative and holistic approach to our work. Our local office is located on Church Street in New Haven.

Our professional services include:

- Civil Engineering
- Water Resources Engineering & Environmental Science
- Environmental Services
- Water & Wastewater Engineering
- Transportation Planning
- Traffic Engineering
- Planning
- Landscape Architecture
- Survey & Mapping
- Geotechnical
- Construction Administration & Inspection

Milone & MacBroom is committed to the core principles and values that define our company. We recognize that the sum of our collective efforts will always be greater than our individual strengths and contributions. Our team of professionals is committed to building strong partnerships with our clients and delivering technically sound, cost-effective, and environmentally sensitive designs through the integration of the firm's disciplines on every project we undertake.

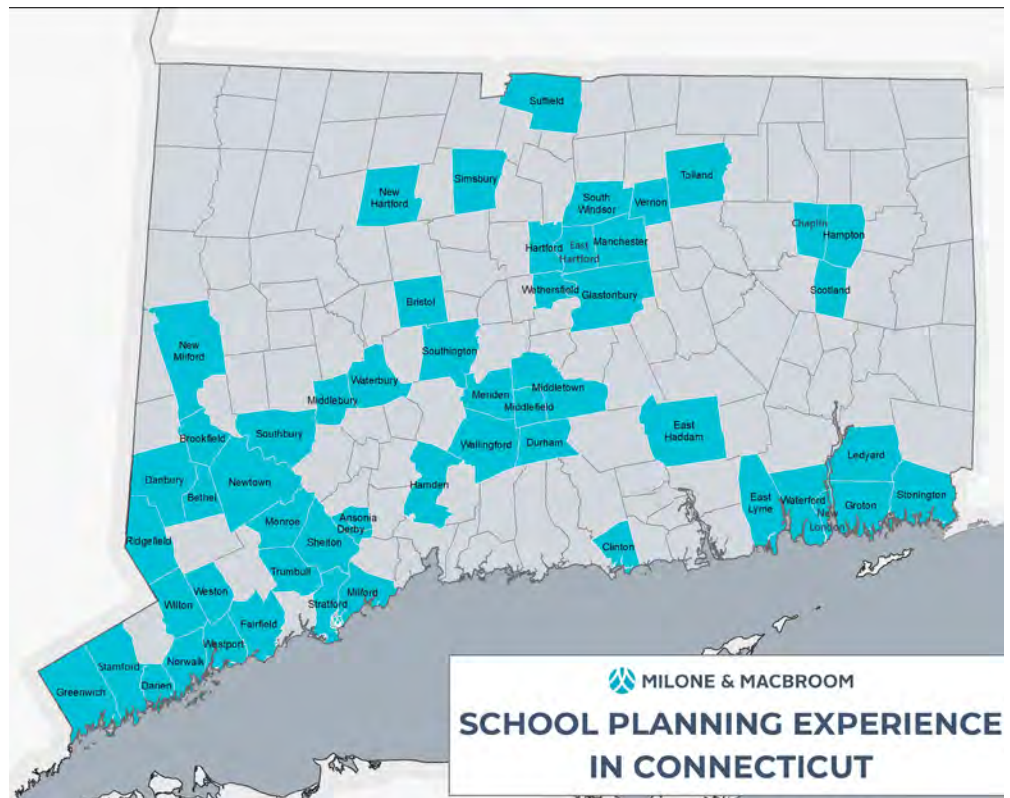
Over the firm's history, we have developed a reputation for technical innovation and award-winning design. The depth and breadth of our highly experienced staff allows the firm to meet complex project requirements and challenging schedules. Our success and future growth is founded on respect for our clients, colleagues, and the communities in which we live, work, and play. We are proud of the diversity of our client base and the strong reputation we have built.



SCHOOL ENROLLMENT PROJECTIONS

Milone & MacBroom has provided enrollment projections to support facility planning and feasibility studies, staffing and budgeting, and school construction grant applications in over 30 communities since 2010. The firm's approach to enrollment studies leverages our overlapping areas of expertise in demography, housing and economic analysis, and geographic information systems (GIS) to accurately capture the variety of factors influencing enrollment change in Connecticut communities. The use of a GIS enrollment management system allows project teams to track how students enter school systems and connect new arrivals to housing sales and live birth data.

The end product of these studies is a set of comprehensive enrollment projections under multiple future economic scenarios providing district administrators with information to inform budgetary plans, prepare for future instructional space needs, guide school feasibility studies, and meet school construction grant requirements.





SCHOOL PLANNING, ENROLLMENT ANALYSIS & REDISTRICTING

Services

- Enrollment Projections
- School Redistricting
- Population & Growth Forecasting
- State of the Art GIS Data Analysis
- Student Address Matching
- Attendance Area Mapping
- School Capacity Analysis
- Citizen Engagement, Community Education & Notification
- Residential Development Potential Analysis
- Land Use & Housing Analysis
- Site Selection Analysis
- Long-Range Facility Planning

Milone & MacBroom offers an array of services in school facility planning and school redistricting. We utilize population and growth forecasting in combination with state-of-the-art, computerized data analysis to meet a variety of client needs, including long-range facility planning and school redistricting.

Milone & MacBroom's school planning efforts are comprised of three basic components. The first is population projection, which is central to our forecasting activities. The firm uses computational techniques such as the cohort-survival method, the one widely employed by the State Department of Education for short-term school projections. Land use and economic-based techniques are also used in some projects.

Second, Milone & MacBroom applies findings from residential development potential analysis to the school planning process. Buildout and growth forecasts, incorporating existing zoning and environmental constraints, provide essential information for policymaking and are a standard element of our municipal plans of development. Together, development analysis and age cohort forecasting supply a wide range of community data.

Finally, Milone & MacBroom's expertise with geographic information system (GIS) software enables us to conduct comprehensive geodemographic analysis. The extraction and projection of demographic information within custom-made boundary areas, such as school districts, affords quick, cost-effective computational capability. Milone & MacBroom can address-match data points, such as school locations, new births, and the existing school population, allowing easy relational analysis among designated variables. Through this system, we can also generate thematic mapping, helpful in community education and participation, and student lists for notifications and mailings.



K-12 EDUCATIONAL SITE DEVELOPMENT

Projects

- New Lebanon Elementary School
Greenwich, CT
- Waddell Elementary School
Manchester, CT
- Verplanck Elementary School
Manchester, CT
- West Bristol K-8 School
Bristol, CT
- Guilford High School
Guilford, CT
- Rockwell & Johnson Schools
Bethel, CT
- Orchard Hill Elementary School
South Windsor, CT
- H.C. Wilcox Technical
High School
Meriden, CT
- Putnam High School
Putnam, CT
- Enfield High School
Enfield, CT
- Hart Elementary School
Stamford, CT
- Central High School
Springfield, MA
- ACES Whitney School
Hamden, CT

Milone & MacBroom provides full site design services for K-12 education schools, including renovations, additions, new facility expansion projects, code updates, and ADA upgrades. By collaborating with our multidisciplinary team of engineering, landscape architecture, planning, environmental science, surveying, and construction administration and inspection professionals, our clients enjoy seamless, comprehensive services.



OUTDOOR ATHLETIC FACILITIES

Projects

- The Taft School
Watertown, CT
- Loomis Chaffee School
Windsor, CT
- Salisbury School
Salisbury, CT
- Reese Stadium, Yale Field,
Yale Bowl, DeWitt Family
Field, Johnson Field,
Dwyer Track, Frank Field
New Haven, CT
- Amity High School
Woodbridge, CT
- Salisbury School
Salisbury, CT
- Bunnell High School
Stratford, CT
- Greenwich High School
Greenwich, CT
- Foran High School
Milford, CT
- Platt & Maloney High Schools
Meriden, CT
- Suffield Academy
Suffield, CT
- Berkshire Academy School
Sheffield, MA
- The MacDuffie School
Granby, MA
- Bryant University
Smithfield, RI

Milone & MacBroom's landscape architects and engineers have completed more than 50 projects totaling over \$100 million to serve the physical, education, scholastic, and community needs for athletic facilities.

Our projects involve an analysis of indoor and outdoor facility conditions that identify problems and deficiencies which affect possible expansion, the evaluation of appropriate uses of these facilities, and the design and construction administration of improvements. Assignments include running tracks; tennis courts; bleachers; field lighting; concession, rest room, and storage buildings; parking areas; and roadways. Each project is designed in accordance with Americans with Disabilities Act (ADA) requirements.

The design of competitive athletic facilities require the evaluation of several critical issues which may affect the quality of play. Our experienced staff evaluates the placement of a field for optimum orientation, establishes the appropriate grades for each playing surface, develops a suitable water collection system to allow play after rainfall events, analyzes the appropriate methods of placing fill to control settlement, and selects the appropriate blend of grasses and soil structure for proper turf quality.



Michael Zuba, AICP, NCI

Director of Planning

Mike Zuba, AICP, is the Director of Planning for Milone & MacBroom's public and private planning and development projects. Since 2000, Mike has assisted more than 60 communities on a variety of projects ranging from demographics and land use to comprehensive plans. Mr. Zuba understands the complexity of modern planning projects, balancing input from many stakeholders, managing project dynamics, and fostering public involvement.

Mike is certified by the National Charrette Institute (NCI) for designing and leading public outreach processes and workshops. He has extensive experience serving as a facilitator for public and private client's planning processes including master plans, development projects, school redistricting, facility master plans, zoning regulations and community comprehensive plans.

YEARS EXPERIENCE

- 18 With This Firm
- 2 With Other Firms

EDUCATION

MS, Environmental Science
University of New Haven

BS, Environmental Science
Wilkes University

LICENSE & CERTIFICATIONS

Certified Planner, American Institute of
Certified Planners (AICP), 2004

National Charrette Institute(NCI)

Certification in GIS University of New
Haven

AFFILIATIONS

Member, American Planning
Association

National Charrette Institute Member,
Connecticut Economic Development
Association

Groton Public Schools Long-Range Facilities Plan | Groton, CT

Project Director for a Long-Range Planning process to provide recommendations for the design of a school system that reflects the system's long-term vision and takes into consideration educational programs, budgets, facilities, and demographic changes. Led community outreach and consensus building in advance of a successful referendum.

Hartford Public Schools Master Plan | Hartford, CT

Assists Hartford Public Schools annually on enrollment projections for facility planning, programming, and budget development. Project Manager for facility master plan which examines districtwide, regional, and school-specific enrollment projections for Hartford's Intradistrict and Regional Choice System and facility utilization. Leading project team and facilitating meetings with citywide stakeholder groups in order to develop recommendations that position Hartford Schools for the next decade and beyond.

Facility Master Plan | Norwalk, CT

Project Manager for enrollment projections, demographic analysis and space utilization study of Norwalk's schools to develop long-term recommendations as how to best position facilities for changing needs. Assisted Norwalk with redistricting and magnet school programming guidance throughout the master plan implementation.

New London Public Schools Master Plan | New London, CT

Project Manager overseeing enrollment projections to guide New London's Master Plan for the city's magnet schools system.

Stamford Public Schools Ten Year Enrollment & Space Utilization Study | Stamford, CT

Project Manager for this facility plan that aims to analyze changes in enrollment patterns and demographics, assess space utilization, and develop recommendations for enrollment balancing and reconfiguration options for the Stamford Public School System.



Rebecca Augur, AICP, NCI

Principal Planner

Ms. Augur is an emerging leader in land use and community planning in Connecticut. As President of the Connecticut Chapter of the American Planning Association, she is actively involved in promoting and supporting the profession at the state and national level. Ms. Augur offers diverse experience as a consulting, regional, and municipal planner. Her technical skills in zoning regulation development, GIS analysis, and public outreach enhance the capabilities of the firm's Planning Group. She is experienced in a variety of community and school planning projects. Her training and experience, and involvement with the American Planning Association contribute to her deep understanding of the complex demographic, housing, and social factors influencing community plans and decision-making, as well as her ability to facilitate the public planning process.

YEARS EXPERIENCE

10 With This Firm

7 With Other Firms

EDUCATION

MA, Regional Planning
University of Massachusetts

BA, International Studies
Marlboro College

LICENSE & CERTIFICATIONS

Certified Planner, American Institute
of Certified Planners (AICP), 2007
National Charrette Institute

AFFILIATIONS

President, Connecticut Chapter
American Planning Association (CCAPA)

Member, Chapter Presidents Council of
the American Planning Association

Member, Connecticut Economic
Development Association

Hartford Public Schools Equity 2020 Facilities Study | Hartford, CT

Responsible for districtwide and individual school enrollment projections, generating alternatives for facilities utilization, and public outreach.

Waterbury Public Schools Facility Utilization & Redistricting Study | Waterbury, CT

Assisted in analyzing demographic, housing, and enrollment trends; preparing enrollment projections; and generating long-range alternatives to alleviate overcrowding in the system's elementary and middle schools.

New Milford Public Schools Long-Range Facilities Plan | New Milford, CT

Assisted in completing a comprehensive enrollment analysis and projections. Analyzed population and housing trends, conducted a buildout analysis, and used standard projection method to project future enrollments. Involved in public outreach efforts to develop redistricting and/or reconfiguration recommendations.

Milford Public Schools Long-Range Facilities Plan | Milford, CT

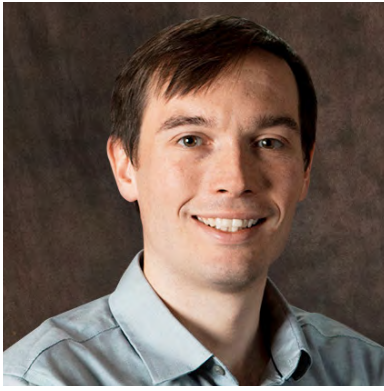
Assisted with a long-range school facilities plan. Analyzed demographic and enrollment trends throughout the city and school facilities usage. Prepared districtwide and individual school enrollment projections. Assisted in developing alternative configurations, usage, and/or districting of schools and public outreach efforts.

Stamford Public Schools Ten-Year Enrollment & Space Utilization Study | Stamford, CT

Assisted in completing a comprehensive enrollment and facilities analysis and projections. Worked with city planners and building departments to analyze recent construction trends (over 2,500 units in the last 6 years) and impacts on school enrollments. Using GIS, analyzed demographic, social, and other housing trends as well as Stamford enrollments. Assisted in the preparation of enrollment projections at the districtwide and individual school level over a 5- and 10-year horizon.

City of New Haven Commercial Gateway District Regulations | New Haven, CT

Assisted in drafting zoning regulations for a new zoning district to encourage mixed-use, transit-oriented development in three existing commercial corridors. Facilitated public outreach and engagement during the planning process.



Patrick J. Gallagher, AICP

Planner III

Mr. Gallagher is a Planner with expertise in transportation planning, land use assessments, socioeconomic analyses, data visualization, public outreach, and Geographic Information Systems (GIS). He specializes in the interactions between transportation, land use, and the environment. With experience in both the public and private sector, his work combines technical proficiency with the engagement of local, regional, and state stakeholders. Mr. Gallagher has extensive experience using GIS on a wide range of community, environmental, and transportation planning projects. His areas of expertise include database creation and management, spatial analysis, and cartography.

YEARS EXPERIENCE

- 5 With This Firm
- 4 With Other Firms

EDUCATION

- MA, Geography
University of Connecticut
- BA, Geography
State University of New York at Geneseo

LICENSE & CERTIFICATIONS

- Graduate Certificate in Geographic Information Systems, University of Connecticut, Storrs, Connecticut
- Certified Planner, American Institute of Certified Planners (AICP)

AFFILIATIONS

- American Planning Association
- International Council of Shopping Centers

Groton 2020 School Facilities Plan | Groton, CT

The Groton 2020 School Facilities Plan is a long-range plan that involves several school construction and school closure projects as well as the development of a robust intradistrict magnet program. Tasks included the creation of redistricting options that aligned with the final school facilities plan. Created 8-year enrollment projections that were used in the state school construction grant application. Developed intradistrict magnet school attendance zones in order to ensure long-term facility utilization and racial balance across all elementary schools. Assisted in the preparation of school construction grant materials. Developed final elementary attendance zones following the completion of all construction projects and assisted the district in developing implementation strategies.

Waterbury Public Schools Facility Study | Waterbury, CT

Used GIS to create conceptual elementary school district boundaries used to assess the impact of new school construction and renovation projects. Other tasks included land use and buildout analysis of each enrollment zone which evaluated the future growth potential and assistance with public workshop materials.

Wethersfield Public Schools Long Range Facilities Plan | Wethersfield, CT

Developed ten-year enrollment projections based on a comprehensive analysis of enrollment, demographic, housing, and economic trends. Evaluated elementary school facility utilization. Assisted in a site feasibility analysis of existing schools to test their ability to support a new or renovated school building. Assisted the district with the identification of a swing space and phasing of future school investments. Developed conceptual redistricting boundaries for different long-range planning scenarios.

New Haven Commercial Corridor Zoning | New Haven, CT

Assisted in a zoning assessment of three commercial zoning corridors in the City of New Haven on the periphery of the Downtown. Analyzed existing zoning and land use data and developed a visual preferences survey that showed residents potential outcomes of different zoning strategies pertaining to height, density, setbacks, step-backs, parking, landscaping, and streetscaping. Led a public workshop on visual preferences and gathered community feedback for each of the three corridors, which was used to inform the Draft Zoning Regulations.



Daniel J. Kroeber, PE

Principal Civil Engineer

Mr. Kroeber is a Principal Civil Engineer with expertise in the design and preparation of engineering plans for residential, commercial, and industrial developments, as well as athletic field design. Mr. Kroeber's project experience includes the design of sanitary and storm sewers, drainage systems, septic systems, and roadway layout and design.

YEARS EXPERIENCE

16 With This Firm

EDUCATION

BS, Civil Engineering
University of Connecticut

LICENSE & CERTIFICATIONS

Professional Engineer - CT

AFFILIATIONS

American Sport's Builder's Association
Member, Synthetic Turf Council

Stonington Elementary Schools | Stonington, CT

Lead Project Engineer responsible for the preparation of full site engineering and design for additions and renovations two existing elementary schools in Stonington, CT. Services include survey, traffic circulation patterns with a focus on separation of bus and vehicular drop-off locations and adequate parking for staff and visitors, athletic fields, playgrounds, sensory garden, stormwater management features, landscape design, traffic engineering and local regulatory land use permits.

Bethel School Renovation Project | Bethel, CT

Lead Project Engineer/Project Manager for the renovations to Johnson and Rockwell Elementary schools in Bethel, Connecticut. The project began as a feasibility study to study the required site improvements and associated costs. The Town of Bethel successfully passed a referendum to support funding of the project in the Fall of 2017. After the successful referendum design began on the two schools including complete reconstruction of the schools bus loop and parent pick-up/drop-off areas. The project also includes the reconstruction of the schools playgrounds, paved play and all associated utility infrastructure. At Johnson School several large additions are proposed to incorporate the new school programming.

Kenney Field Center & Jensen Plaza at Yale Bowl | New Haven, CT

Provided engineering services related to the addition to Yale Bowl and the new entrance plaza associated with the new Kennedy Field Center and Jensen Plaza at Yale University.

Reese Stadium Team Rooms & Stands, Yale University | New Haven, CT

Coordinated with architect on the design of stadium seating and team rooms at Yale University's Reese Stadium. The project included the design of storm drainage, sanitary sewer, and water conveyance systems. The project had several sensitive issues to work around, such as two large mature trees that were preserved in the entry plaza area. Care was taken to minimize the impacts to the critical root zones during construction. The building foundation was constructed only a few feet from the existing synthetic field that Milone & MacBroom designed in 2007.

Yale Tennis Center Additions & Renovations | New Haven, CT

Project Engineer on construction-level plans prepared for Yale University to expand their existing indoor "Culman-Heyman" tennis center. Work included the design of underground storm drainage systems to attenuate the increase in peak flow rates from the site. A sewer pump station was designed to pump sewage from the new building to the town sewer system. Other design features of the job include sediment and erosion controls and coordination with architect, landscape architect, and local utility companies.



David W. Dickson, PLA

Principal

Mr. Dickson is a Senior Project Manager with over 29 years of experience in site design and master planning. His diverse blend of project types include municipal, government, and commercial buildings; parks and recreation; transportation; schools and campus design; and housing. He oversees all phases of project development from project initiation and design to regulatory permitting, construction documents, and construction administration.

YEARS EXPERIENCE

26 With This Firm

3 With Other Firms

EDUCATION

BS, Landscape Architecture
Pennsylvania State University

LICENSE & CERTIFICATIONS

Landscape Architecture - CT, MA

AFFILIATIONS

Commander, U.S. Naval Reserve
(Retired)

American Institute of Architects

Construction Specifications Institute
(CSI)

Sports Turf Managers Association
(STMA)

American Sports Builders Association
(ASBA)

Military Officers Association of American
(MOAA)

Association of the United States Navy
(AUSN)

Society of American Military Engineers
(SAME)

West Bristol K-8 School | Bristol, CT

Project Manager for all aspects of planning and site design of a new 120,000-square-foot K-8 school on a 28-acre parcel. Design features included a vehicular and pedestrian circulation system (including separate bus and parent drop-off areas), parking for 200 cars, two outdoor playgrounds (with basketball court), outdoor student plaza, site lighting and landscaping, athletic fields (baseball, softball, and multipurpose); off-site improvements including signalized crosswalk, city sidewalks, lane restriping, and pedestrian crosswalks. The project also included an elaborate stormwater management system, field irrigation, and all pertinent site utilities. This project received a first place award from the Connecticut Building Congress for the best new K-12 school in the state of Connecticut.

Duggan Elementary School | Waterbury, CT

Project Manager responsible for the landscape architecture and civil engineering services for renovation and expansion of the existing historic Duggan Elementary School. The project expansion required the acquisition of 17 adjacent properties to provide for the proposed building expansion and programmatic outdoor spaces. The designed outdoor spaces included the main bus drop-off, the PreK-4 bus and parent drop-off, a multipurpose playfield, two playgrounds, and a 40-car parking lot.

River Street School at Colt Gateway | Hartford, CT

Project Manager responsible for the site planning and landscape architecture of improvements to the Colt Gateway site. The project involved the rehabilitation of a 40,000-square-foot building into a two-story preschool / early learning center for children with autism. The facility also included a state-of-the-art playground.

E.G. Stocks Playground | Bristol, CT

Project Manager responsible for the design and engineering of park improvements, including establishing a park gateway stone wall, columns, and signage; new timber guiderail; signalized pedestrian crossings; sidewalks; parking area; spray park; landscaping, lighting, and coordinated site amenities (benches and trash receptacles); playscape; pavilion; lighted sand volleyball courts; and basketball court.

Putnam High School Renovations & Addition | Putnam, CT

Project Manager responsible for the site design, landscape architecture, civil engineering, and local and state DEEP regulatory permitting for a 9,000-square-foot addition and renovation to the existing high school. The \$36,000,000 construction phase began in late 2014 and was completed in 2016.



David G. Sullivan, PE

US Manager of Traffic & Transportation Planning

As US Manager of Traffic & Transportation Planning, Mr. Sullivan has supervised numerous traffic engineering and transportation planning studies and improvement plans for new developments, corridors, and campus settings. Integral to these efforts were multimodal evaluations and complete streets solutions. He has also supervised countless traffic impact studies for a variety of uses, including educational facilities, industrial plants, superblocks, shopping centers, residential developments, and office/business parks. Mr. Sullivan has significant experience related to parking studies. This includes evaluation of multiple facilities within town/city centers; individual multiuse projects where shared parking demand by users was evaluated; and operational evaluation of various parking strategies and on-street dynamic parking studies.

YEARS EXPERIENCE

33 With This Firm

5 With Other Firms

EDUCATION

BS, Civil Engineering
University of Connecticut

LICENSE & CERTIFICATIONS

Professional Engineer - CT

AFFILIATIONS

Institute of Transportation Engineers
American Society of Civil Engineers

Johnson & Rockwell Elementary Schools | Bethel, CT

Traffic engineering services for the design and construction of two “renovate-as-new” proposed elementary school buildings in Bethel, Connecticut.

Stonington Elementary Schools | Stonington, CT

Traffic engineering services for additions and renovations to two existing elementary schools in Stonington, Connecticut. Services include traffic circulation patterns with a focus on separation of bus and vehicular drop-off locations and adequate parking for staff and visitors.

Waddell Elementary School | Manchester, CT

Traffic engineering services for the renovations to Waddell Elementary School in Manchester, Connecticut. The renovated school will include new on-site parking areas, parent pick-up and drop-off, and a reconstructed bus loop.

Verplanck Elementary School | Manchester, CT

Traffic engineering services for the renovations to Verplanck Elementary School in Manchester, Connecticut. The renovated school will provide expanded on-site parking, parent pick-up and drop-off, and a reconstructed bus loop separated from staff and parent parking.

Point-in-Time Survey & Parking Plan Update | New Haven, CT

Project Director responsible for overseeing the management and execution of the annual Point-In-Time Survey and Parking Plan Update for the City of New Haven. This assignment began some ten years ago as a printed report and has migrated over the years to an on-line story map available to the general public on the City’s website.

On-Street Parking Performance-Based Pricing Monitoring and Evaluation | New Haven, CT

Project Director for a study to develop a reporting process for monitoring and evaluating time-of-day pricing at on-street parking meters in New Haven. The goal of this effort is to balance parking on-street in downtown New Haven by charging rates that are sufficient to create more turnover and free up one to two parking spaces per block during peak periods.

OLA Consulting Engineers, PC
FIRM OVERVIEW



Since 1974, OLA Consulting Engineers has built a reputation for providing a wide range of innovative engineering services related to building systems and utilities—HVAC, electrical, energy, plumbing, commissioning, and fire protection. Whether serving as the energy consultant, MEP design engineer or commissioning authority, our professional, licensed staff partners with our clients from initial project concept and feasibility through construction and commissioning to deliver reliable engineering solutions with a key focus on energy conservation and sustainability designed to optimize operations and maximize savings.

At OLA, we are committed to engineering better environments.

At OLA, we are committed to engineering better environments. 'Engineering better environments' isn't just something we say. OLA is deeply committed to making positive, lasting impacts on the environment. We are a proud member of the U.S. Green Building Council—and have successfully completed 40+ LEED certified/registered projects

OLA BY THE NUMBERS

- 1974** Company founded
- 5** Principals of the firm; Principal involvement on every project
- 46** Years providing reliable engineering solutions
- 40+** Certified energy conservation projects (Energy Star, LEED, etc.)
- 21** LEED Accredited Professionals on staff
- 50%** Technical staff with a Professional Engineering license

as well as many projects that have received the coveted “Designed for Energy Star Challenge” designation.

Additionally, OLA fully understands that K-12 education facilities are the growing grounds for the children in our communities. And that is the reason why our team of experienced engineers focus on low-cost energy efficient systems that establish an ideal environment for learning and development. From initial project concept and feasibility, through construction and commissioning, we are on your side ensuring building systems and operations are optimized to your exact needs.



JAMES F. DOLAN, P.E., CEM, BCXP, LEED AP

Principal in Charge, Energy Engineering Services

EDUCATION

M.S. Mechanical Engineering
Manhattan College, Bronx, NY

B.S. Mechanical Engineering
*U.S. Merchant Marine Academy,
Kings Point, NY*

Senior Executives Institute
Graduate
*American Council of
Engineering Companies*

REGISTRATION

New York, Illinois

CERTIFICATIONS

Building Commissioning
Professional

Certified Energy Manager

LEED Accredited Professional

Trainer for ASHRAE 90.1
Energy Standard

AFFILIATIONS

ASHRAE Bi-State Chapter
Board of Governors; Past
President

Association of Energy
Engineers, Senior Member



Mr. Dolan is the Principal in Charge of Energy Engineering Services. In this role, he oversees all energy audits, energy modeling, energy retrofits, high performance design and commissioning projects for the firm.

Since joining OLA in 2002, Mr. Dolan has been the project manager and lead engineer on many high performance and sustainable design projects, including LEED certified Sam's Point Conservation Center, LEED Gold Jacob Burns Media Center and LEED Gold Manhattanville College Student Center. Mr. Dolan has headed up commissioning and energy analysis for several project types, including new construction, core and shell, commercial interiors and existing buildings.

Prior to joining OLA, Mr. Dolan had a 12-year work history that included working as an Energy Engineer for an energy service company as well as mechanical consulting engineering for firms in Chicago and Connecticut. Mr. Dolan is considered an expert on high performance buildings and sustainable design, speaking frequently to professional and academic organizations throughout the region, including speaking engagements such as the ASHRAE National Meeting in New York, the New York Society of Professional Engineers Annual Conference and the Build Boston Conference for the Boston Society of Architects/AIA.

RELEVANT EXPERIENCE

- » New York City School Construction Authority Level I Energy Audit, New York, NY
- » New York City School Construction Authority Level 3 Energy Assessment & Energy Master Plan, Bronx NY
- » General Society of Mechanics and Tradesmen of the City of New York Energy Audit, New York, NY
- » EF Academy Energy Audit, Thornwood, NY
- » Rudin Management High-Performance Tenant Interiors Demonstration Pilot Project, New York, NY
- » Arts Westchester Energy Audit, White Plains, NY
- » Swiss Re Central Plant Replacement, Armonk, NY



CAMILLE BOWMAN, P.E., CEM, BCXP, LEED AP

Associate

EDUCATION

M.S. Mechanical Engineering
*Massachusetts Institute of
Technology, Cambridge, MA*

B.S. Mechanical Engineering
Cooper Union, New York, NY

REGISTRATION

New York

CERTIFICATIONS

LEED Accredited Professional

Certified Energy Manager

Commissioning Process
Management Professional

AFFILIATIONS

American Society of
Heating, Refrigerating and
Air-Conditioning Engineers

Ms. Bowman is an Associate with the firm in the Energy Engineering Services Group. She has expertise in mechanical systems design for HVAC and energy projects, conducting energy audits and feasibility studies, energy modeling of buildings and commissioning. Ms. Bowman works on many of the firm's energy consulting assignments in NYSERDA's New Construction Program and NYSERDA's FlexTech Program for existing buildings.

Prior to joining OLA in 2010, Ms. Bowman was a Senior Mechanical Engineer for Arup—serving as a project manager, lead designer and energy/systems analyst in the building engineering group, producing full mechanical designs from concept through construction and leading project teams throughout the design. Much of her design focus has been on evaluating and implementing sustainable, energy efficient methods in buildings. She has extensive experience in analyzing building system options, thermal comfort conditions, building energy consumption and conservation, operating costs and life cycle cost for projects.

Some of the recent projects Ms. Bowman has been involved with include the design of mechanical systems for Solar 2 Environmental Learning Center, a net zero energy building in Manhattan; New Museum of Contemporary Art in downtown Manhattan; and JetBlue Terminal 5 at JFK Airport.

RELEVANT EXPERIENCE

- » EF Academy Energy Audit, Thornwood, NY
- » Arts Westchester Energy Audit, White Plains, NY
- » Swiss Re Central Plant Replacement, Armonk, NY
- » Stone Barns Chiller Replacement & Net Zero Campus Master Plan, Pocantico Hills, NY
- » Hutchinson Elementary School, Pelham, NY
- » EF Schools Energy Audit, Tarrytown, NY
- » Swiss Re Headquarters Energy Reduction Program, Armonk, NY





DANIEL NORVAL, QCXP, LEED AP

Senior Commissioning Authority

EDUCATION

Howell Cheney Regional Vocational Technical School, Manchester, CT

REGISTRATION

New York

CERTIFICATIONS

LEED Accredited Professional

Qualified Commissioning Process Provider

AFFILIATIONS

American Society of Heating, Refrigerating and Air-Conditioning Engineers

Mr. Norval is a Senior Commissioning Authority with the firm in the Energy Engineering Services Group. Prior to joining OLA in 2004, he spent nine years as a project manager in a design-build mechanical company where he oversaw sub-contractors, developed sequences of operations for systems in order to meet energy performance requirements, participated in start-up of equipment and facility training. At OLA, Mr. Norval leads many of our commissioning projects overseeing junior commissioning staff, performing design reviews, developing commissioning plans, writing commissioning specifications, developing functional tests, performing functional tests, writing commissioning reports, overseeing operator training and developing systems operations manuals.

Mr. Norval is very involved in the NYSERDA New Construction Program and NYSERDA FlexTech Program projects for OLA. In these projects, he is managing both the energy engineering, design and commissioning efforts. Additionally, Mr. Norval has been involved in many LEED projects for OLA, including the Barnard Environmental Magnet School, NYPD Tow Pound Operations Building, Gateway Community College in New Haven, the Center at Maple Grove and the Jacob Burns Media Arts Lab.

RELEVANT EXPERIENCE

- » EF Academy Energy Audit, Thornwood, NY
- » Swiss Re Central Plant Replacement, Armonk, NY
- » Stone Barns Chiller Replacement & Net Zero Campus Master Plan, Pocantico Hills, NY
- » EF Schools Energy Audit, Tarrytown, NY
- » Swiss Re Headquarters Energy Reduction Program, Armonk, NY
- » Stone Barns Center Sustainability Master Plan, Pocantico Hills, NY
- » Trinity Episcopal School Commissioning, New York, NY
- » The Spence School Commissioning, New York, NY
- » Swiss Re Headquarters Retro-Commissioning, Armonk, NY





JONATHAN KATZ, P.E., CEM, BCXP, LEED AP

Associate

EDUCATION

B.S., Mechanical Engineering
*Polytechnic University,
Brooklyn, NY*

REGISTRATION

New York

CERTIFICATIONS

Building Commissioning
Professional (BCxP)

LEED Accredited Professional

Certified Energy Manager

AFFILIATIONS

American Society of
Heating, Refrigerating and
Air-Conditioning Engineers

Mr. Katz is an Associate with the firm in the Energy Engineering Services Group. He has expertise in conducting energy audits, feasibility studies, mechanical design for HVAC and energy projects, building control systems design, whole building simulations and energy modeling of building equipment. In addition to his energy work, Mr. Katz has extensive HVAC design experience, including geothermal heat pump systems, high efficiency boiler plants, chiller plant retrofits, combined heat and power plants exhaust air heat recovery, AC condenser heat recovery and building automation systems. Some of the recent projects he has been involved with include the design of multiple combined heat and power plants for BluePoint Energy; an energy audit for the Yeager Health Center for Rockland County; and two energy audits for the U.S. Postal Service for the Manhattan Vehicle Maintenance Facility and the 1.2 million sq. ft. 90 Church Street Post Office and Office Tower.

Prior to joining OLA in 2006, he spent seven years as a project manager and mechanical engineer for several consulting engineering firms in the NYC metro area. During this time, he provided energy audits, energy conservation feasibility studies and energy conservation project designs as a consultant for the New York Power Authority and Con Edison.

Mr. Katz is also well versed in NYSERDA programs and the application process. In addition, he has been involved in a number of OLA's projects for NYSERDA under the FlexTech and New Construction Programs as NYSERDA's technical assistance provider.

RELEVANT EXPERIENCE

- » New York City School Construction Authority Level I Energy Audit, New York, NY
- » New York City School Construction Authority Level 3 Energy Assessment & Energy Master Plan, Bronx NY
- » General Society of Mechanics and Tradesmen of the City of New York Energy Audit, New York, NY
- » Battery Park City Authority Site 3 RCx, New York, NY





JOHN TORRE, P.E., LEED AP

Principal in Charge, Electrical Engineering Services

EDUCATION

B.S., Electrical Engineering
Manhattan College

REGISTRATION

New York

CERTIFICATIONS

LEED Accredited Professional

AFFILIATIONS

Institute of Electrical &
Electronics Engineers

International Association of
Electrical Inspectors

New York Building Congress

New York Fire Alarm
Association

Mr. Torre is the Principal in Charge of Electrical Engineering Services for OLA Consulting Engineers. In this role, Mr. Torre oversees all aspects of electrical engineering for the firm; including staff training, design standards, quality assurance and overseeing work distribution among the electrical design teams. In addition to his management role, Mr. Torre remains very active with his clients in both project management and principal in charge roles.

Since joining OLA in 1995, Mr. Torre has served as project manager on many of our larger projects in the corporate, educational, and critical environment areas. In addition to his expertise with power distribution, emergency power systems, on-site power generation systems, and low voltage system design, he is experienced in the design of energy efficient lighting systems, including various day lighting and other lighting control systems. Mr. Torre has been in a number of LEED Certified projects including Jacob Burns Media Arts Lab, Manhattanville College Student Center, and a Corporate Aviation Center at Westchester County Airport. In addition, involved with the NY State Judicial Institute at Pace University, the redevelopment of Cross County Shopping Center, as well as major school bond construction programs in Westchester County, New York.

Prior to joining OLA, Mr. Torre had a six year work history that included work as an electrical engineer for a fire alarm design and installation company; providing him with expertise on low voltage system and fire codes. An expert in the Electric Code and NFPA Codes, Mr. Torre is currently a member of the Electrical Code Revision Committee for the NYC Department of Buildings 2018 Construction Codes Revision.

RELEVANT EXPERIENCE

- » Cross County Shopping Center, Yonkers, NY
- » Rockefeller Brothers Fund Sustainability Master Plan, Pocantico, NY
- » Robert L. Yeager Health Center, Pomona, NY





DANIEL J. SMITH, P.E., LEED AP

Associate

EDUCATION

B.S., Electrical Engineering
Manhattan College, Bronx, NY

REGISTRATION

New York

CERTIFICATIONS

LEED Accredited Professional

AFFILIATIONS

Institute of Electrical &
Electronics Engineers

International Association of
Electrical Inspectors

Mr. Smith is an Associate with the firm and a team leader in our Electrical Engineering Services Group. He plays an important role in the electrical group's technical quality assurance program, standard design procedures and mentoring of junior staff on his team, in addition to his project management and project engineering duties.

Since joining OLA in 1996, Mr. Smith has served as project manager on many of our projects in the commercial, government, telecommunications, recreation, educational and critical environment areas. He has expertise in the design of electrical power distribution systems, emergency power systems, power generation systems, communications systems and fire alarm systems. In addition, he is well versed in energy efficient lighting design, including advanced lighting control systems.

He has extensive experience working for clients on the firm's term contracts with DASNY, the NY State Office of General Services, the New York City School Construction Authority and the US Postal Service. He has been project manager on projects for such diverse clients as Sebonack Golf Club, Sprint PCS, the City of Yonkers, Vassar Brothers Medical Center and the Archdiocese of New York. He also has extensive experience in electrical design for educational projects.

RELEVANT EXPERIENCE

- » Davis Street School, New Haven, CT
- » Metro Business Academy for the New Haven Public Schools
- » Children's Village Residential School
- » Tuckahoe Union Free School District in New York





JOSEPH FIERRO, P.E.

Associate

EDUCATION

B.S., Electrical Engineering
Manhattan College

REGISTRATION

New York

AFFILIATIONS

Illuminating Engineering
Society of North America

International Association of
Electrical Inspectors

Mr. Fierro is an Associate with the firm and a team leader in our Electrical Engineering Services Group. He has experience in project management and electrical design for commercial, transportation, and institutional facilities. He specializes in the design of electrical distribution, power, lighting, fire alarm and communication systems including field inspections, construction services, and resident engineering.

Prior to joining OLA in 2008, Mr. Fierro worked for a prominent New York City A/E firm for 19 years where he had risen to the position of chief electrical engineer and project manager. As chief electrical engineer he was responsible for the project management, technical direction, supervision, and quality assurance of the electrical department's designs. Mr. Fierro's experience includes electrical design for international airports, schools, transit facilities, correctional facilities, commercial buildings and highway and bridges.

Mr. Fierro has a very strong and vast experience base in electrical engineering relating to power, lighting and fire alarm designs. He has designed and managed a wide range of projects; including, complete electrical design for new construction, electrical service upgrades, emergency power systems, fire alarm system replacements, lighting control modernizations and building condition surveys. Mr. Fierro is very experienced in the design of energy efficient lighting and lighting controls in retrofits, renovations, and new construction. He has been involved with incorporating daylighting controls, occupancy controls, dimming systems and central programmable lighting control systems into various transportation, commercial and educational projects.

RELEVANT EXPERIENCE

- » Various schools for NYC Schools Construction Authority
- » ConnDOT Rail Station upgrades along New Haven Metro North Line
- » TBTA's Henry Hudson Bridge
- » Rte 9A Pedestrian Bridges at WTC site
- » GSA's Emanuel Cellar Building



COMPANY PROFILE

ABOUT US

D'Agostino & Associates is a nationally recognized Technology / Security / Audio-Visual Design & Support Service company. Years of research, training, practice, and field experience has given us the edge needed to anticipate the direction and development of new technologies. Our design professionals specialize in assessing our client's needs and evaluating each project thoroughly. Our core principles of communication, accountability, and providing responsive service empowers us to design cost efficient, practical systems that combine the perfect balance of case-specific and state-of-the-art technology for our clients. The results of these efforts are solutions-based, user-friendly systems that will be of service to our clients for many years after the completion of the project.

COMPANY AFFILIATIONS

ASIS - American Society for Industrial Security, International

BICSI - Building Industry Consulting Service International

TECHNOLOGY, PHYSICAL SECURITY & AUDIO-VISUAL SYSTEMS

- **Physical Security System Design;** Intrusion Detection, IP Access Controls & Video Surveillance, & Command Operation Centers
- **Communication Cabling Design;** LAN, WAN and MAN Cabling Infrastructure Design
- **Wireless Design;** WiFi (Controller & Cloud Based) & Wireless Mesh Systems
- **Voice Systems (VoIP)**
- **Mass Notification Systems;** Public Address and Sound Systems
- **Network Electronics & Firewall Design;** Ethernet and WiFi
- **Audio Video Technology;** Video Distribution, Conferencing, Digital Display Messaging, Interactive Displays, Theatric Auditoriums & Theaters, Projectors, Audio related Control Systems.
- **Server & Data Room Physical Design**
- **Physical Security Assessments**
- **Technology Assessments**
- **IT / Network Assessments**
- **Estimating**
- **Service Provider Negotiations & Management**
- **Documentation Preparation**
- **Contractor Relations**
- **Construction Administration**

SERVICES

Feasibility & Master Planning:

Preparation of as built plans, coordination with owner and stakeholders to understand new uses of spaces, analyzing life cycle costs of new and existing technology and security systems, and outlining scope of work for new installation and implementations.

Design & Documentation:

Preparation of construction specifications and drawings to ensure that bidding documents are developed for the successful bidding process, procurement & installation. Our design packages can be included along with the architectural bid package or be provided as a stand-alone bid package. Documentation consists of detailed drawings and written specifications.

Bid Management:

Solicitation of vendor pricing, management of project-specific informational conferences, respond to RFI's, bid submittal analysis, evaluation of installation contractors & award recommendations.

Construction Administration :

Administration for the overall construction and installation of contractors pertaining to the Technology systems design, attendance of project meeting with integrators, respond to RFI's, site inspections to ensure completeness of installations as mandated, verification that specified installation methods have been met by the installation contractors.



PROFESSIONAL RESUME

Marc J D'Agostino
Founder, Sr Technology Engineer

EXPERIENCE:

Marc D'Agostino is a management and design specialist with over 30 years of Technology, Security, Audio Visual design, engineering, and project management experience. Marc has been involved with design and consulting projects throughout his career. He is an expert in evaluating existing technological systems and transitioning older technologies into current, more scalable and reliable solutions that improve efficiency and cost. Marc is consistently evolving with the newest technology mandates, codes, standards and trends to accurately define and satisfy a project's requirements and needs. Capable of meeting all time schedules while maintaining the project's budgetary estimates. Construction management & communication skills to coordinate with all stakeholders from the Owner to design construction professionals for each systems' successful design and implementation.

VALUE OFFERED:

- Technology Evaluation
- LAN, WAN and MAN Infrastructure Design
- Network Infrastructure Design (Ethernet and WiFi)
- Technologies over internet protocol; Voice & Video over IP (VoIP)
- Documentation Preparation
- Security System Design (intrusion detection, access controls & video surveillance) SOC Design.
- Audio Visual Design (sound & recording, conferencing, long distance learning, cinema sound systems and digital display technology)
- Data Center Design
- IT Strategic Planning
- Estimating
- Service Provider Negotiations & Management
- Contract Negotiations
- Owner Relations
- Contractor Relations
- Construction Administration

CERTIFICATION & TRAINING:

- Member of ASIS International (American Society for Industrial Security)
- BICSI member with accumulating credits
- Comprehension of the ANSI/TIA/EIA, ISO/IEC, BICSI and the IEEE standards.
- Knowledge of the NEC, NFPA & NECS codes that apply to low voltage systems; including the data, telecommunication, security and A/V industries.
- Comprehension of computer aided design.
- Past and ongoing accredited training and affiliations ensure that all technology designs conform to the current industries standards.

PROFESSIONAL EXPERIENCE:

Marc has spearheaded numerous projects involving Technology, Security and Audio-Visual systems in higher education, municipality, libraries, state & federal, healthcare, corporate, retail, and the private sectors. Including projects commanding time-critical and new technologies, transition from outdated technologies to highly functional, efficient, and cost-effective client-server technology solutions which have dramatically improved efficiency and optimization of technology.



PROFESSIONAL RESUME

Nicholas A D'Agostino, RCDD, PSP, PMP
Sr. Manager of System Design

EXPERIENCE:

Nicholas D'Agostino is a project manager & systems designer with more than 8 years' experience in Technology, Security and Audio Visual System design and project management services. Nicholas is a certified Physical Security Professional (PSP) and Registered Communication Distribution Designer (RCDD). An expert in Physical Security, Audio Visual, and Technology System design for the K-12 sector. Additionally, as a graduate of Berklee College of Music, he brings real-world experience to the design and application of highly technical systems, particularly with Audio Visual, Music Reproduction, and Sound Reinforcement Systems. Highly skilled at directing the project lifecycle of Security and Audio-Visual projects. Consistently evolving with the newest technology mandates, codes, standards and trends to accurately define and satisfy a project's requirements and needs. Construction management & communication skills to coordinate with all stakeholders to verify each system's successful implementation.

VALUE OFFERED:

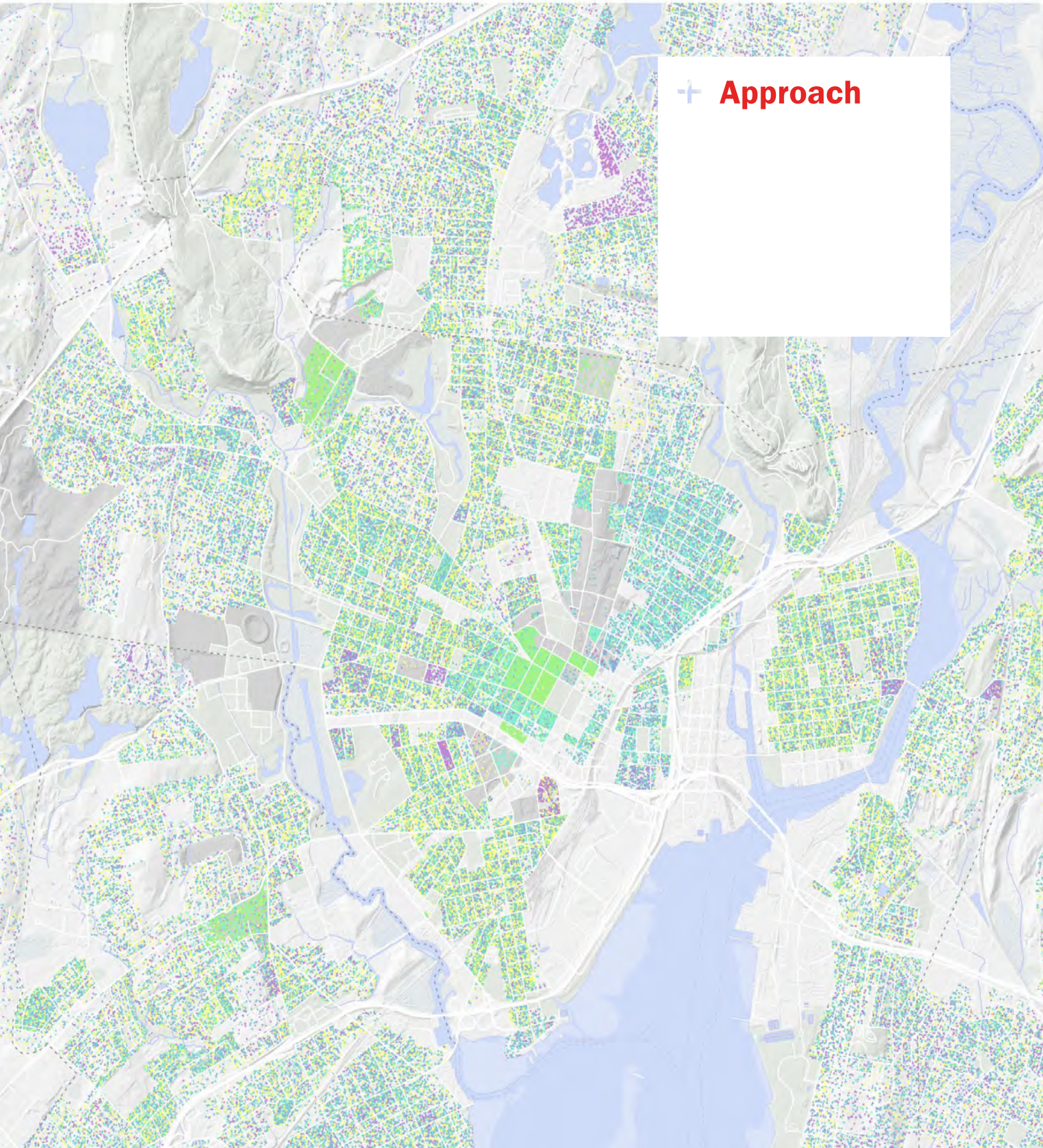
- Security System Design (Intrusion Detection, Access Control, Video Surveillance, Emergency Communication)
- Project Management
- Audio Visual System Design (Sound Reinforcement, Sound Recording, Digital Displays Technology, Live Sound Design, AV Matrix Design)
- Security & AV System Commissioning
- Security & AV Strategic Planning
- Construction Administration

CERTIFICATION & TRAINING:

- Registered Communication Distribution Designer (BICSI Certification – RCDD #276281)
- Certified Physical Security Professional (ASIS Certification – PSP #19011)
- Certified Project Management Professional (PMI Certification – PMP #1786569)
- State of Connecticut Licensed Telecommunications Layout Technician (TLT License - #126)
- Multiple courses with FEMA as related to Security for the K-12 sector
- Graduate of Berklee College of Music
- Member of ASIS International (American Society for Industrial Security)
- Member of BICSI (Building Industry Consulting Service International)
- Comprehension of the ANSI/TIA/EIA, ISO/IEC, BICSI and the IEEE standards.
- Knowledge of the NEC, NFPA & NECS codes that apply to low voltage systems; including the data, telecommunication, security, and A/V industries

RELEVANT PROJECT EXPERIENCE:

The scope of D'Agostino's experience includes project management and lead design responsibilities for all Security and Audio-Visual related systems outlined above including Security feasibility studies, physical security recommendations and project management of overall development and implementation of these systems with the installation contractors.



+ **Approach**



Approach Overview

Project Understanding

We understand that New Haven Public Schools (NHPS) seeks to undertake a Long Range Facilities Planning Study that includes the following scope of work:

- A. NHPS student enrollment projections for the next 10 years including magnet and school choice student populations;
- B. Assess and identify curricular and programmatic priorities as identified in the HNPS 2020-2024 Strategic Plan “Learn, Achieve, Rise;”
- C. Assess the programming and quality of existing educational infrastructure, including recommendations for repair, renovation, re-purposing, or consolidation;
- D. Identify alternatives for reducing energy consumption;
- E. Develop three scenarios for optimal facility utilization for the next 10 years; and
- F. Outline the broad implications of these scenarios on academic achievement, District operating budget, infrastructure efficiencies, facilities’ management, and transportation (busing increases) – along with impacts on students and families.

Based on our project understanding and previous similar experience, we have developed an execution strategy and process that is designed to deliver high quality data and reporting to meet both short and long-term goals.



Project Approach

Our planning process is designed to produce a plan that is both visionary and practical. Executing a clear and simple master planning process allows clients to focus their energies on addressing complex issues without wrestling with the process, ultimately arriving at a justifiable plan. By investigating goals, challenges, and opportunities, a comprehensive plan can be developed that achieves defined objectives, garners community acceptance, identifies cost parameters, and ensures that the plan presented for approval will be properly vetted and have the greatest opportunity to succeed.

Communication

Our team will be structured to provide the City of New Haven a single point of contact for day-to-day project management who is responsible for managing the progression of work by the project team through all of the phases of the work. **Julia McFadden will be the prime client contact** and she will work in concert with Kemp Morhardt on project management. The project manager will work in tandem with the Principal-In-Charge (PIC) (Jay Brotman) who will be responsible for decision making and total contractual obligations of our team.

Collaborative Process

We will work collaboratively with City representatives to engage the community as broadly as determined appropriate. By obtaining input from a diverse user group, we will get vital information about the needs and goals of the schools, and the focused interaction of many users can help to forge a common vision.

City of New Haven working group

We will work with you to establish a “working group” that will serve as representatives for the various city stakeholders and be the interface between the city and our team. The group will ideally have representation from the offices of the Mayor, Superintendent, Board of Education, NHPS facilities, and community as deemed appropriate.

Project Initiation/Organizational Meeting

At an initial coordination meeting with the working group, conducted in-person or virtually, we will review and confirm major project goals, objectives, special issues or concerns, appropriate level of community engagement, and priorities. This process will allow the design team to establish a detailed work plan and methodology on which all participants can agree, ensuring that all efforts will be focused and efficient. The initial meeting will include our assessment of the project schedule, communication procedures, and project deliverables. We will also discuss key program and service requirements based on our understanding of the project. We will establish clear guidelines and assign individual responsibilities.

The follow up to the initial meeting will be a detailed project work plan which identifies tasks for all parties, topics of discussion, necessary city decisions, and design team deliverables for each future working session. The work plan is a critical component to ensure the project advances efficiently to the agreed upon completion deadline.





TASK A – DEMOGRAPHIC ANALYSIS & ENROLLMENT PROJECTIONS

Enrollment Projections Initiation

An initial virtual project kickoff meeting with the project team and NHPS staff will occur at the outset of the project to confirm data sources, discuss methodologies, and review expected deliverables. MMI will review its data requirements and will confirm data sources with the NHPS administration.

Our data request for NHPS includes the following:

- + Historic student enrollment from the district's student information system that identifies grade, building, and resident address (New Haven or magnet) for the current and each of the past 5 school years.
- + Available enrollment for New Haven resident students attending other educational opportunities such as charter, technical, other public, or private schools.
- + Provide a succinct accounting of changes in choice programming and any lottery application data available in order to facilitate MMI's understanding of enrollment trends.
- + Student assignment process and attendance areas for non-magnet programming
- + Identification of any district-wide self-contained special education (SPED) programs, locations, and enrollment, as well as an account of any recent or anticipated changes to those programs.
- + Individual school target capacities and enrollment caps.

Housing, Economy, and Demographics

Understanding economic, housing and demographic trends, characteristics and forecasts is crucial to the school planning process. This information provides the background by which future changes and development within a community can be anticipated and planned for accordingly.

MMI will consult with New Haven's City Plan Department to determine recent residential growth, identify development proposals of significant scale, and/or planning initiatives that may impact enrollment levels. The project team will review and analyze information on regional economic drivers to better understand the impacts on housing and demographics for the City. This task will also include an analysis of demographic patterns and trends for New Haven and the region based on recent planning studies from the City and from available Census data. The current status and change over the last decade for key demographic figures such as population and composition; school-age population; women of childbearing age; and housing tenure, composition, occupancy, and sales will be assessed and analyzed in comparison to enrollment trends to identify correlations.

MMI will collect and analyze birth records for the City of New Haven. This information will form the basis for the next five incoming kindergarten classes. In order to project kindergarten enrollment beyond 5 years, mathematic or multiple regression analyses will be performed to project additional birth data in order to provide a 10-year enrollment projection horizon. This information will be combined with existing enrollments and estimates of migration utilizing a modified cohort-survival method, to project future enrollments.

This task will provide a better understanding of the demographic and housing dynamics of New Haven and the region from which magnet students draw. It is critical to NHPS magnet programming to gain a solid understanding of the demographic and enrollment trends for communities sending students to New Haven Public Schools.

Enrollment Trends and Educational Landscape

The project team will collect, analyze, and graph historical enrollment to understand enrollment trends at the neighborhood, city and regional level. In addition to understanding total enrollment trends, it is important to identify historic enrollments and characteristics, in order to accurately project future enrollment and characteristics. Our enrollment management system allows us to identify and analyze student migration from year-to-year to determine the future impact on the school system.

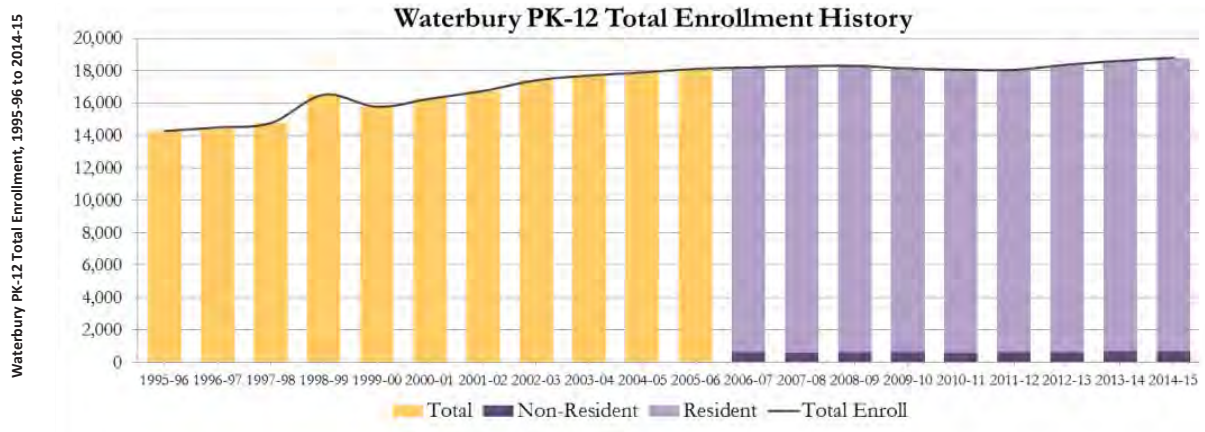
It is very important for NHPS to understand the enrollment dynamics of the region. The first part of this analysis is focused on the movement of New Haven resident students. Private and other public enrollment will be collected and analyzed to identify trends for resident students to understand the most likely future direction of resident students. Equally important is gaining a deep understanding of the regional magnet school landscape: what other programs are about to come online or in the planning stages that might affect New Haven's regional magnet draw; what are the trends in regional student enrollments in New Haven magnet schools? This analysis of regional conditions will provide insight into understanding the regional education "market" to guide the enrollment projections.

Enrollment Projections

The cohort-survival method, with some modifications, will be used to develop enrollment projections. The cohort-survival methodology is a standard method for projecting populations and student enrollments and relies on observed data from the recent past in order to project the near future. The base enrollment forecast will be developed from the analysis of the following historical variables: school-age population, birth records, and estimates of migration. The estimated student generation from any external growth factors including newly constructed, planned, and approved residential development is then added to the base school forecast. MMI will generate districtwide and school facility-specific elementary enrollment projections disaggregated by grade. These projections will forecast the overall student population for a 10-year planning horizon. Projections will be prepared for low-, medium-, and high-growth scenarios with all assumptions clearly defined.

Meetings

MMI has included up to five meetings during normal business hours for the purposes of coordination with the design team and NHPS administrators related to this task. Additionally, MMI will attend one meeting with the Board of Education (BOE) virtually or in person for the purpose of presenting the findings of the Enrollment Projection Report.



TASK B – CURRICULAR AND PROGRAMMATIC PRIORITIES

Our team will review the NHPS Strategic Plan in-depth to gain an intimate knowledge of the core values, overarching goals, and priorities for NHPS. We will also review School Improvement Plans for each facility to gain an understanding of desired programs and other individual school needs. We will **conduct two or three workshop meetings** with the working group to discuss the strategies and tactics included in the strategic plan and develop a prioritized implementation plan as it relates to NHPS facilities and facility operations.

NHPS Strategic Plan Overarching Goals 2020 - 2024:

1. Strong Foundation in Early Learning
2. High Achievement for All Learners
3. Development of the Whole Child
4. Preparation for College, Career and Life
5. Unwavering Commitment to Equity, Growth and Progress

NHPS Strategic Plan Priority Areas:

1. Academic Learning
2. Culture & Climate
3. Youth & Family Engagement
4. Talented Educators
5. Operational Efficiencies

Focused discussion will include, but not be limited to the following areas in the context of the above listed goals and priorities:

Curriculum and educational trends:

- + Existing and establishment of new programs
- + Delivery process (i.e. in-person and remote learning)
 - Technology infrastructure.

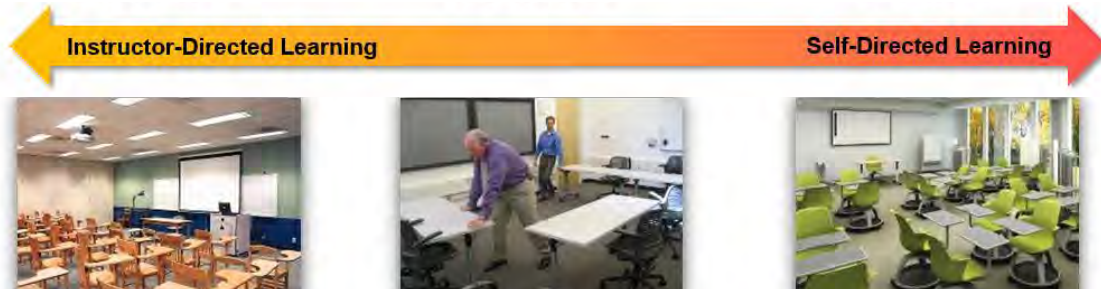
Parity of facilities and programs (between individual schools and across the district):

- + Safety and Security
- + Interior environment (i.e. comfort, daylighting, flexible environments)
- + Exterior environment (i.e. playgrounds, fields, outdoor classrooms,)
- + Community resources and access.

Grade configuration:

- + Neighborhood schools, magnet schools, singular middle, HS)
- + Equity balancing objectives
- + Transportation and student travel time/ distance.

The outcome from the workshop meetings, coupled with the enrollment projections and facility condition & capacity assessment, will form the foundational database on which the master planning effort will build.



TASK C – FACILITY CONDITIONS, CAPACITY AND UTILIZATION ASSESSMENT:

Data Collection & Management

We will coordinate with the assigned NHPS contact to obtain an electronic copy of any available existing facility data, standards, and associated protocols. This data will be converted into a format that will provide the greatest degree of efficiency for our architects, engineers, and educational facility planners to evaluate the existing conditions.

Review Existing Documentation / Asset Data Reports

Our team will collect and review available building and asset data reports, which will include information and records such as:

- + As-built or best available renovation, addition, or new construction drawings in digital format;
- + Maintenance logs/ records and files;
- + Previous condition and deferred maintenance assessments;
- + Inspection reports and surveys;
- + Reports and data from the District's energy conservation program;
- + List of approved capital improvement projects planned for implementation in the next ten years.

The goal is to collect any information that should be implemented, included, and/or excluded in the master plan.

Standards Development Work Session

Stakeholder involvement is essential to tailor the process to New Haven's expectations. A successful approach integrates NHPS's current standards and expectations into a mutually agreed upon framework to meet project specific goals. This collaborative session will review items such as the building classification system, building types, capital planning prioritization classifications, condition ratings, as well as major building systems and components to evaluate -- based on an overall integrity, probable useful life, and need of replacement timeframe. The UNIFORMAT building classification system is one of the primary tools we propose for ensuring consistency of assessment information between buildings and projects.

Facility Condition Assessment

In an effort to keep costs of the study as low as possible, and since a large portion of the NHPS facility inventory has been built new or renovated over the past 25 years, our team will rely on existing documentation such as the recently completed study noted in Addendum #2 and other facility reports, rather than our team performing a field survey of each facility. We will also gather condition assessment information from facility managers/ specialists, and recent construction documents to rank major systems/ equipment and other key components identified in the standards development work session.

This data will be crafted into a matrix that will rank systems and equipment with respect to current condition and remaining service life. Additional attention will be given to facilities that have not been renovated in recent years, where records may not be as complete, to assess conditions and forecast costs of anticipated repair/replacement.

Facility assessment will include virtual meetings, or phone interviews with the key administrators, building maintenance personnel, and/or specialists responsible for individual facilities as necessary. This dialogue provides invaluable information for assessment teams and offers insight into problematic issues and additional asset history.

If there is a need to visit a facility to confirm current conditions not discernable by review of asset data and/or interviews, our team will visit an individual building to confirm necessary information.

We have budgeted a total of 30 hours for architectural field verification in our proposal.

The assessment team will:

- + Assess general conditions of specified facilities and its major components, such as MEP/FP systems, building envelope, general interior conditions, technology infrastructure and safety & security;
- + Identify deficiencies/ required improvements and make recommendations for corrective actions;
- + Record findings in a matrix that ranks component condition and priority.

Site Condition Assessment

MMI plans to visit each school site to assess site conditions and catalog existence and condition of site assets such as playgrounds, fields, drive lanes, and parking facilities. Our team will identify whether existing traffic and pedestrian circulation patterns can safely be expanded or reconfigured to meet increased enrollment in the future.

Mechanical/Electrical/Plumbing/Fire Protection Condition Assessment

OLA's MEP engineers will review available drawings, specifications, studies and reports to assess the HVAC systems, documenting equipment approximate age and condition. As this is a high-level overview, detailed conditions would not be possible such as assessing BMS operations. OLA will leverage operator or district information to help assess the conditions. Should any operational issues be identified or conveyed to the Engineer by BOE or operators they shall be documented, and source noted.

The following items are anticipated to be assessed to determine "New", "Good", "Fair" or "in need of replacement" categories.

- + Central Plant (boilers, chillers).
- + Heating/Cooling CHW/HW Circulation System
- + AHU's, MAU's, and RTU's (Sample condition survey)
- + Exhaust Systems
- + BMS System (attempt to view on BMS with operator to ensure systems is operational).
- + Lighting (status condition and predominant controls per classroom).
- + Status latest Balancing Report (owner to provide documentation). Comment on ventilation with respect to future filtration and outside air needs with respect to Indoor Air Quality (IAQ).
- + Domestic Hot Water System
- + Photovoltaic System (if applicable)
- + Fire Protection (note if sprinklered or not), existence of fire pump etc.
- + Electrical Service (view condition and note any owner concerns on condition or operation)
- + Note Generator availability and document extent of service
- + Where unique conditions or systems are observed, or significant area of concern – items shall be documented

OLA has budgeted a total of 70 hours for engineering field verification in our proposal, to account for a selected number of facilities visited.

Technology Infrastructure Condition Assessment

D'Agostino Associates will assess the communication cabling infrastructure through available reports and data indicating the age and type of the following:

- + Review Cable Category type for copper horizontal and Fiber backbone.
- + Review Data room environment against ANSI/TIA/EIA, ISO/IEC, & IEEE Standards.
- + Review Data Room Environment against BICSI best Practices.
- + Review the following criteria for each Data Room: Size; Shared use with electrical, custodial, storage, etc.; Grounding; and Cooling.

The review of the Communication Cabling Infrastructure excludes documentation of the endpoint locations and the following: Public address system; Master clock system; AV equipment; Phone system; Physical security systems (such as video cameras, strobes, notification systems, etc.); Wireless access points; Network electronics; Servers; and Desktop equipment, printers, etc.

D'Agostino, in coordination with the whole team, will make recommendations to retain, supplement, replace, or relocate these system and its subsystems as foreseen to support the Master Planning scenarios.

Facility Capacity and Utilization Assessment

We anticipate facility capacity and utilization in accordance with 21st century teaching pedagogies will be a primary focus of this study, which will drive much of the scenario development for facility best-use. As noted above, we anticipate the physical conditions will be less of an influence since most of the school facilities have been built new, or renovated, within the last 25 years, except for unique circumstances.

We will request that the BoE provide our team with floor plans marked up by the Principal, or other school administrators assigning the following for each space:

- + current use (i.e. grade level classroom, or classroom type: Math, English, Social Studies, World Language, Special Ed, etc.);
- + schedule information regarding use (i.e. how many periods per day is the space in use);
- + special program accommodations.

Due to the availability of electronic scaled drawings for all facilities the capacity assessment will be largely an office exercise based on our analysis of the plans and data received from the district noted above. It will include tallying an inventory of spaces and determining a functional capacity for each space and facility. The data will be presented by school, facility type (elementary, middle, high), and district-wide. Capacity and utilization will be presented together with projected enrollment data to illustrate where capacity versus overcrowding may be present.

We have budgeted a total of 30 hours for architectural field verification of existing conditions in our proposal (visits to selected number of facilities).

Quality Assurance

All work will be reviewed and validated by our Quality Assurance team prior to being submitted for client review. Project team leaders will review the assessment reports for accuracy, consistency, completeness, technical judgment, and actively address issues as they arise. Final reports are not printed until all data has been subjected to this process.

Building Condition, Capacity & Utilization Assessment Reporting

Reports summarizing the findings and recommendations as a result of the assessment will be provided for client review and approval. The draft report will include an executive summary, prioritization for repairs, and existing capacity and utilization, by facility and across the district by school type, as well as other supportive documentation.

Table 15 Option A and Option A1 Enrollment Impacts

School	Functional Capacity	Existing Conditions			Option A			Net Change in Students
		Existing Enrollment	Surplus/ Deficit	% Utilized	Proposed Enrollment	Surplus/ Deficit	% Utilized	
Chase	714	816	(102)	114%	694	20	97%	-122
Generali	552	603	(51)	109%	544	8	99%	-59
Gilmartin ^{1,3}	465	506	(41)	109%	453	12	97%	-53
Hopeville	467	475	(8)	102%	466	1	100%	-9
Wendell Cross ²	375	366	9	98%	500	30	94%	134
Kingsbury ²	445	512	(67)	115%	500	30	94%	-12
Sprague	430	461	(31)	107%	397	33	92%	-64
Regan	223	279	(56)	125%	246	(23)	110%	-33
North End MS	916	1,021	(105)	111%	851	65	93%	-170
Wallace MS ³	1,049	1,159	(110)	110%	994	55	95%	-165
North Quad (New) ⁴	530	-	-	-	500	30	94%	500
East Quad (New) ⁴	530	-	-	-	500	30	94%	500

TASK D – MASTER PLANNING:

Facility Best-Use Alternatives

Our team will apply the knowledge gained from the earlier tasks and work with the city to develop criteria/ priorities for guiding facility best-use alternatives. A key design step relies upon the successful engagement of diverse user groups in well-orchestrated work sessions to share knowledge and gather ideas. These work sessions support visionary thinking and create a collaborative environment for our design / educational planning professionals to obtain feedback from multiple perspectives.

Multiple scenarios will be crafted with listed considerations for discussion with the city leaders related to academic achievement, parity of facilities and programs, transportation impacts, implications to students and families, infrastructure costs, approved capital projects, budget and city debt-service capabilities. We will evaluate planning scenarios that may include conceptual block diagrams illustrating proposed building additions to accommodate existing grade configurations, consolidation, and/or retirement of older facilities to maximize utilization to best meet the needs of the district. One overarching goal will be to ensure that NHPS has physical spaces that will support current and future academic programs and facilities that provide a vibrant living and learning community. Our team will ultimately identify the best three scenarios, inclusive of implementation time-lines and estimated costs.

District Energy Consumption Alternatives (Planning & Recommendations)

Based on owner provided utility costs and energy consumption information, OLA shall review and compare utility data to previous studies and BOE objectives. A review of Energy Star benchmark data and comparison of kBtu/SF EUI metrics shall be provided.

Where items are noted that can potentially save energy, OLA shall utilize the previously modeled breakdowns to estimate potential savings. A potential plan to further reduce energy for the District shall be developed both for cost management and to work to reduce the carbon footprint. Consideration of renewable energy strategies will be included.

A high-level approach shall be provided to consider Net 0 or Carbon Neutral objectives. This effort shall be informed by the energy assessment but shall also inform the Facility Master Plan alternatives noted in the next section below.

Master Planning Report

Our team will prepare and present a Draft Facilities Master Plan report including, but not limited to the following elements. The draft report will be reviewed by city administrators and the working group for comment. Comments and adjustments identified by the thorough review will be implemented into the final report.

- + All findings and recommendations in narrative, table, and graphic form;
- + A summary table including all buildings with the following information as extracted from the City's existing reports and limited site visits: year built; square footage; construction type; building envelope and approximate age of roof/ windows/ doors; repairs & major renovations completed; current use/ grade configuration; type & age of major building systems/ equipment; condition, number and type of major site components (i.e. playgrounds, fields, parking spaces, bus and parent drop lanes);
- + Description of possible building space reuse, expansion or contraction to economically meet future community needs and enrollment projections;
- + A capital improvements and maintenance plan for buildings for the next 10 years with prioritized improvements based on conditions, future space needs, and code requirements;
- + Cost estimates for the capital improvements and maintenance plan including approximation for total project costs (hard & soft) including forecasted construction cost escalation over the next 10 years;
- + Appendices with all collected data supporting the study.

Presentations

We have included three formal presentations in our fee budget. Our team will present the enrollment projections, interim findings, and final report to the Board of Education at regular meetings in accordance with the approved project schedule. Our team will also present the study findings at a public meeting to be scheduled by the BoE.

Proposed Project Schedule

Refer to the schedule at the end of this Section.



Resources Required

Below we have consolidated a full list of the deliverables (data, information and/or other assistance) needed from the City, Board of Education and School District to conduct the services for a long-range planning study.

General

- + Contact information for the Principal and/or designated staff at each school to confer on both programmatic issues and facility operations
- + Contact information for designated person(s) to confer on Facility Operations and Maintenance
- + Contact information for District Technology staff
- + Contact information for designated Energy Committee member

Demographic Study and Enrollment Projections

- + Historic student enrollment from the district's student information system that identifies grade, building, and resident address (New Haven or magnet) for the current year and each of the past 5 school years
- + Available enrollment for New Haven resident students attending other educational opportunities such as charter, technical, other public and private schools
- + Provide a succinct accounting of changes in choice programming and any lottery application data available, in order to facilitate understanding of enrollment trends
- + Student assignment process and attendance areas for non-magnet programming
- + Identification of any district-wide self-contained special education (SPED) programs, locations, and enrollment, as well as an account of any recent or anticipated changes to those programs
- + Individual school target capacities and enrollment caps

Facilities Assessment

- + Original architectural and engineering plans and specifications for all facilities; including any plans of additions and renovations, or other maintenance improvements
- + Most recently conducted Facility and Site Condition Study, referenced in Addendum 2
- + Maintenance & Operational Reports and data
 - List of maintenance calls/services performed in past 5 years
 - List of outstanding maintenance issues identified at each school facility
 - Code deficiency reports
- + Energy performance and analysis reports (including data from



the Comprehensive Energy Conservation Program, as referenced in Addendum 2)

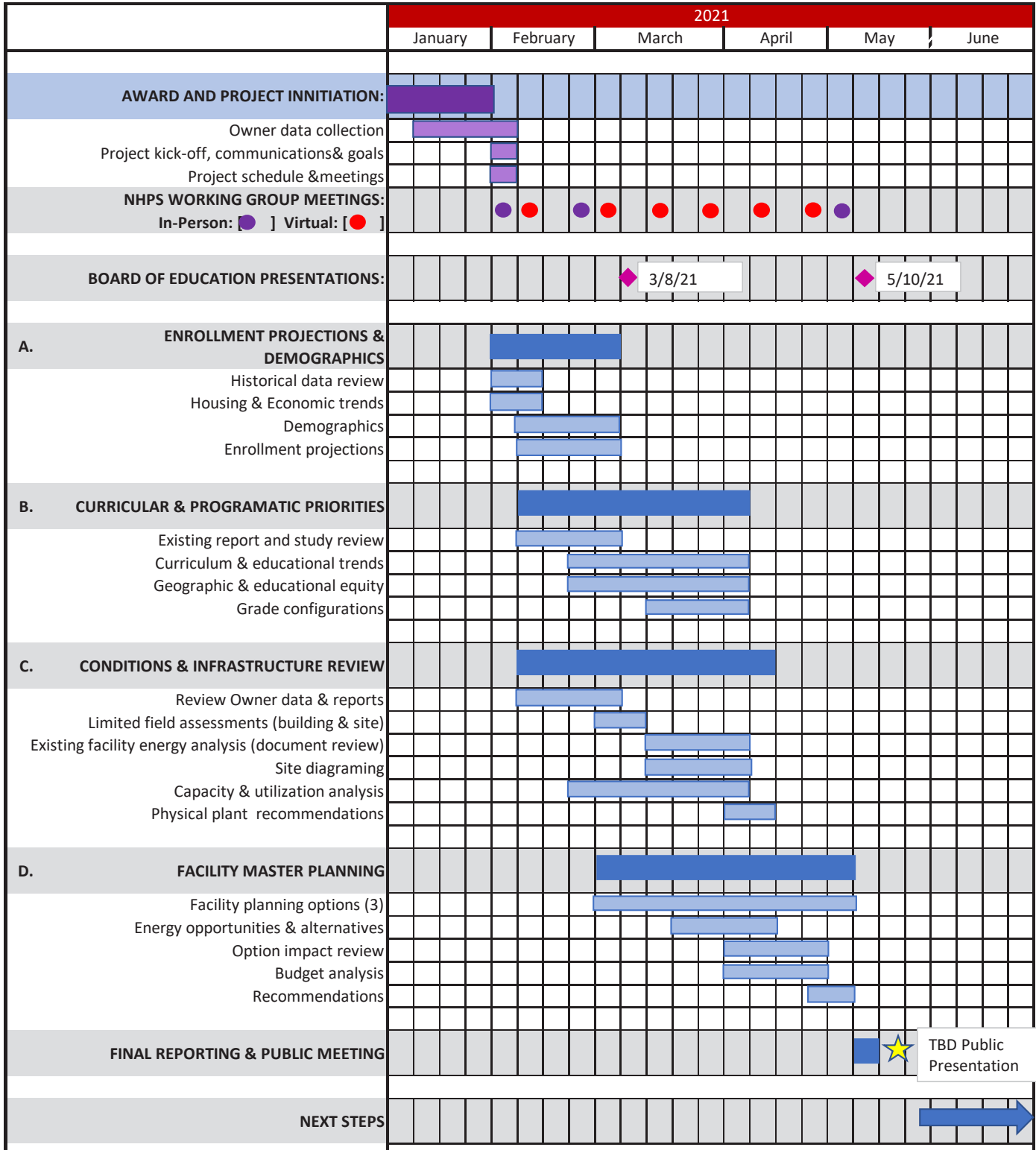
- + Utility costs/invoicing for the past 5 years
- + A list of the issues rectified and actions taken as a result of the High-Performance Schools (HPS) study performed by OLA in 2016 for the Mayor's Energy Task Force together with Gilbane Program Management

School Capacity and Utilization Assessment / Master Planning Scenario Development

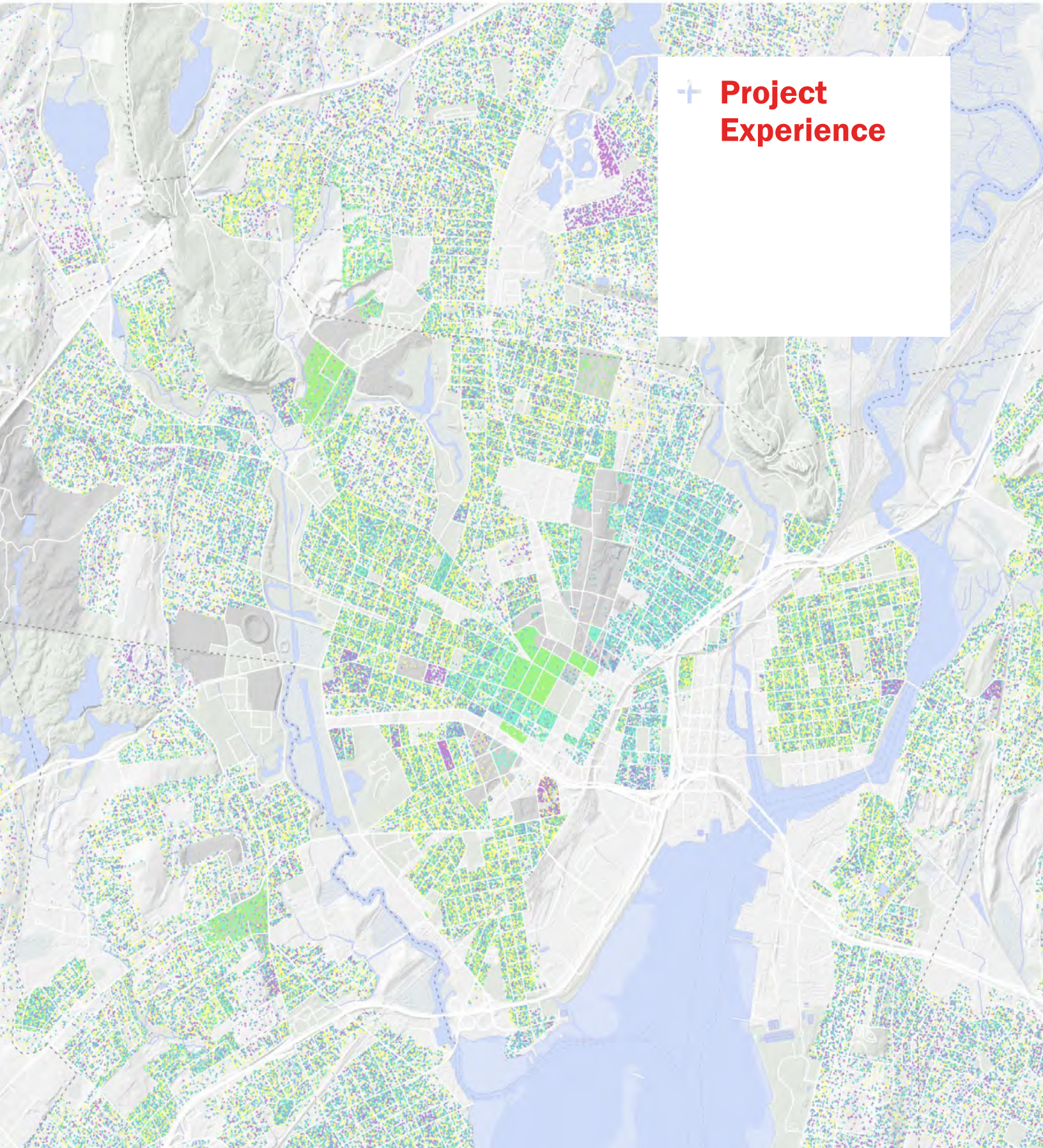
- + The current School Improvement Plans for each school
- + Reports or data on Magnet School performance measures: hitting benchmarks for demographics, achievement, etc.
- + Floor plans – marked up by the principal and/or staff of each school/facility on how each room/space is currently being utilized today
- + Class schedules
- + Uses and personnel housed in the 4 ancillary buildings and 54 Meadow Street:
 - Basis of Design employee roster and space requirements (i.e. – how many individuals need individual offices, how many workstations, conference spaces, storage needs, etc.)
- + Athletic /sports master plan
- + District Technology plan for infrastructure and equipment



NEW HAVEN PUBLIC SCHOOLS - SCHOOL FACILITIES FEASIBILITY AND MASTER PLANNING STUDY



Note: Refer to Part XXX, Project Approach & Understanding for further description of project tasks.



+ **Project Experience**



Overview of Project Experience

We have assembled our team's relevant experience with the following project narratives.

- + An overview of Svigals + Partners five school projects. Beginning with Edgewood School, the first school in the New Haven School Construction Program, where we initiated the community engagement process that SCP subsequently required of all future projects. Svigals also provided conceptual designs for High School in the Community to upgrade several program spaces and improve the curb appeal of the exterior.
- + An overview of SLAM's five school projects.
- + SLAM's five School Master Planning efforts – all within the past 5 years – and the first three done in conjunction with Milone & MacBroom: Waterbury, Hartford, and Groton.
- + Milone & MacBroom's five School Master Planning efforts.
- + OLA's project experience, encompassing sustainability and energy consumption studies for New Haven and New York City School Districts; MEP and energy engineering for New Canaan; and Commissioning services for Svigals + Partners' Sandy Hook School.
- + D'Agostino's scope of Technology Infrastructure assessment for School Master Planning for Westport, CT.

Svigals + Partners - New Haven School Design Projects



Edgewood Magnet School

Grades PreK-8 / 465 students

- + Addition/Renovation
- + 47,700 SF
- + \$9.9 M
- + Completed 1999

Services Provided: Programming, Architectural Services



John S. Martinez STEM Magnet School

Grades PreK-8 / 550 students

- + New Construction
- + 102,00 SF
- + \$24 M
- + Completed 2004

Services Provided: Site Study, Architectural Services



L.W. Beecher Magnet School

Grades PreK-8 / 660 students

- + Addition/Renovation
- + 92,200 SF
- + \$26 M
- + Completed 2007

Services Provided: Site Study, Programming, Architectural Services



Christopher Columbus Family Academy

Grades PreK-8 / 480 students

- + New Construction
- + 80,000 SF
- + \$32 M
- + Completed 2008

Services Provided: Programming, Architectural Services



Engineering & Science University Magnet School

Grades 6-12 / 620 students

- + New Construction
- + 122,750 SF
- + \$58.8 M
- + Completed 2017

Services Provided: Site Selection, Site Feasibility Study & Conceptual Designs, Programming/ Ed Specifications, Architectural Services, Interior Design/FEE

Sustainability: New Haven High Performance Building Standard (LEED Silver Equivalent)

Awards: 1st Place K-12 Schools Project Team Award, CT Building Congress 2018

SLAM - NEW HAVEN PROJECTS



Metropolitan Business Academy

The project consists of a 4-story, business-themed, interdistrict magnet high school for 400 students. The design objective was to facilitate a collaborative, project-based, team learning environment to simulate a real world business environment, preparing its students to manage and own business enterprises. Permeating themes of small class size, a group working environment, and technology have shaped the 86,000-SF space program.

Size: 86,000 SF
Project Cost: \$41.5M
Completion: 2010



Celentano Biotech, Health Medical Magnet School

The school is a Pre-K-8 public school in a historic district, bordered by Yale and an established neighborhood of Arts and Crafts style homes. A circa 1888 former observatory was renovated and an 88,000-SF addition was built to house 555 students. The educational program involved a partnership with both Yale and the Peabody Museum to create a museum magnet academy curriculum.

Size: 101,000 SF
Project Cost: \$32M
Completion: 2006



James Hillhouse High School

Renovate-as-new project for 225,000 SF of 1960's-era buildings to accommodate 1,200 students – while the school was fully occupied and operational. Project included replacement of the outdated exterior metal "skin" with an energy efficient facade; transformation of the auditorium into an updated educational space; creation of a new cafeteria; renovation of all classrooms incorporating technology and updating the infrastructure;

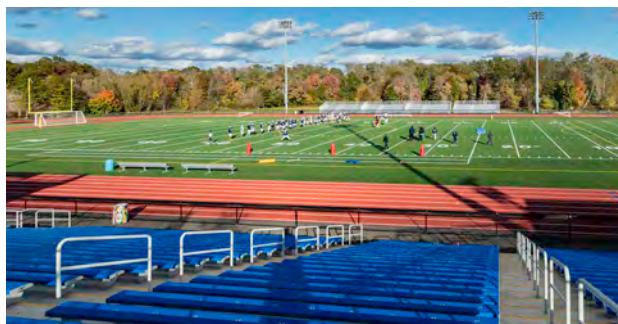
Size: 225,000 SF
Const. Cost: \$26.4M
Completion: 2002



Floyd Little Athletic Center

Field house with an IAAF-certified, 220-meter indoor track and multiple basketball and tennis courts. The multipurpose field house provides an indoor sports arena space the size of a football field, with spectator mezzanine seating. The facility features a three-dimensional steel truss roof, a collaborative tour de force between SLAM architects and structural engineers.

Size: 105,000 SF
Const. Cost: \$51.9M
Completion: 2002



Beaver Ponds Park MP & Bowen Field Renovation

Project included a master plan for the redevelopment of a portion of New Haven's Beaver Ponds Park for use by the adjoining Hillhouse High School. and design services for the implementation of recommended improvements. These included: new bleachers, synthetic turf football/soccer field, 400-meter, 8-lane track with field events, and athletic field lighting.

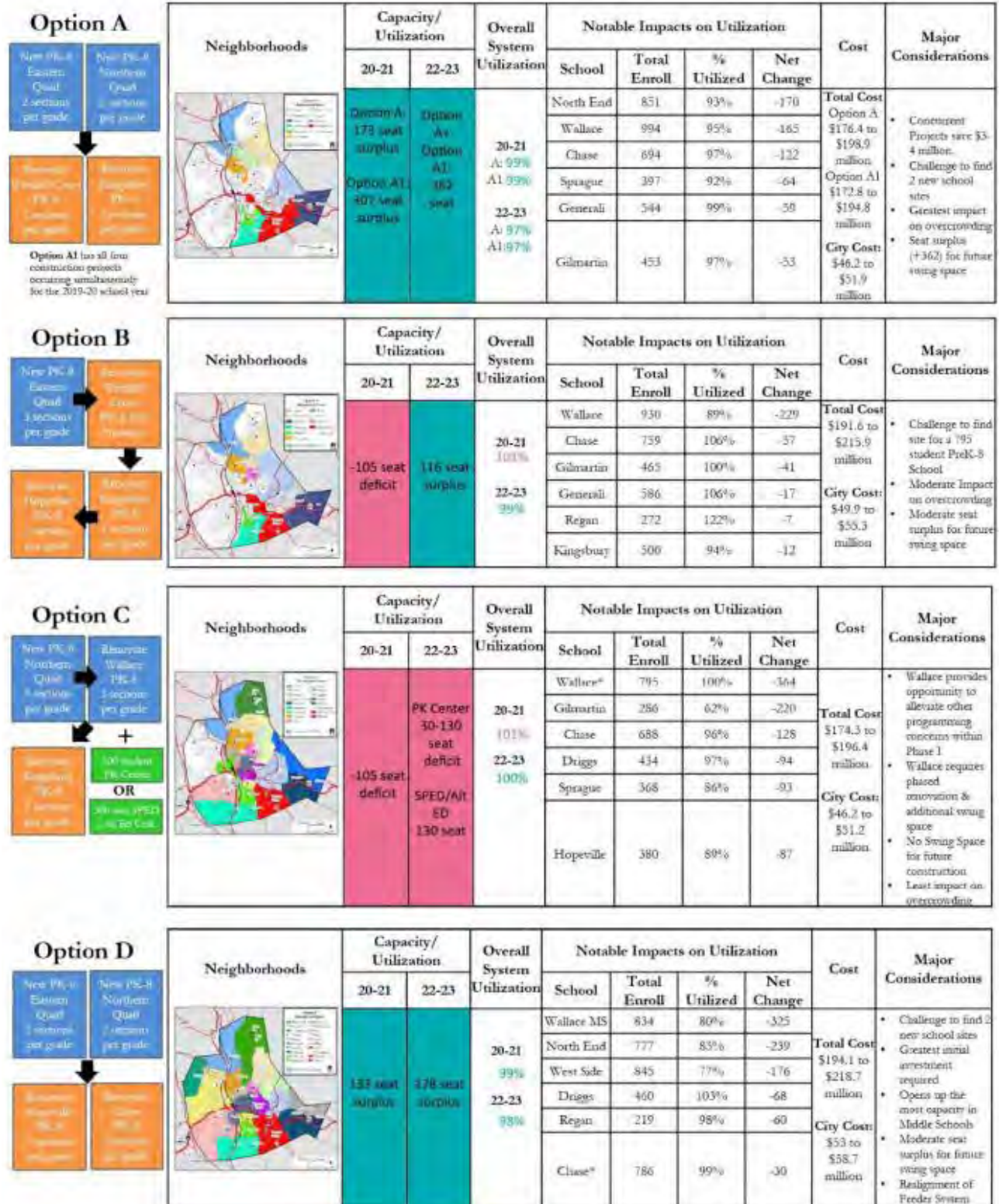
Project Cost: \$12M
Completion: 2016

WATERBURY PUBLIC SCHOOLS - FACILITY UTILIZATION/REDISTRICTING STUDY

Waterbury, CT

Completed: 2015

Figure 01 Summary of Options



SLAM teamed with Milone & MacBroom on the Waterbury Public Schools Utilization and Redistricting Study in the spring of 2015. The study focused on the district's PreK-8 non-magnet schools to understand recent growth in student enrollment over the past three years; project enrollment for the foreseeable future; inventory of existing school facilities to define capacity for the elementary and middle schools; and the development of a plan to align the demographics with school facility needs, space requirements, and educational vision for the PreK-8 grade system. Waterbury Public Schools' enrollment has grown by more than 5% in the past decade; from 17,907 to 18,809 students in the 2014-15 school year. Since 2011, the elementary enrollment has increased by approximately 5%, resulting in increased pressure on the district's capacity.

SLAM conducted an analysis of the capacity, utilization, space use and general condition of Waterbury's PK-5, PK-8 and 6-8 schools; a total of 21 buildings. The utilization analysis included benchmarking facilities to discern inequalities and/or inadequacies and provided a functional capacity for each school. The analysis found that 16 of the 21 schools were operating above 100% of their capacity and as a whole, the PK-5, PK-8 and 6-8 schools were operating at 109%, 103% and 104% capacity respectively. Projected utilization for 2022-23 school year, based on enrollment projections provided by MM, was estimated at 106% collectively for the PK-8 facilities, or a deficit of nearly 700 seats.

The SLAM and MM team worked closely with the Waterbury Board of Education, Waterbury Public School's administration and city officials to develop alternatives for future modifications to existing facilities that aim to mitigate overcrowding and establish cohesive neighborhood based PK-8 schools. Alternatives explored building new schools in both eastern and northern quadrants of the city, and/or renovating and expanding existing PK-5 schools into PK-8 schools sized appropriately for the population density of the neighborhood. The alternative analysis will assist the Board of Education and city in determining the best path for continuing the PK-8 neighborhood vision for the district.

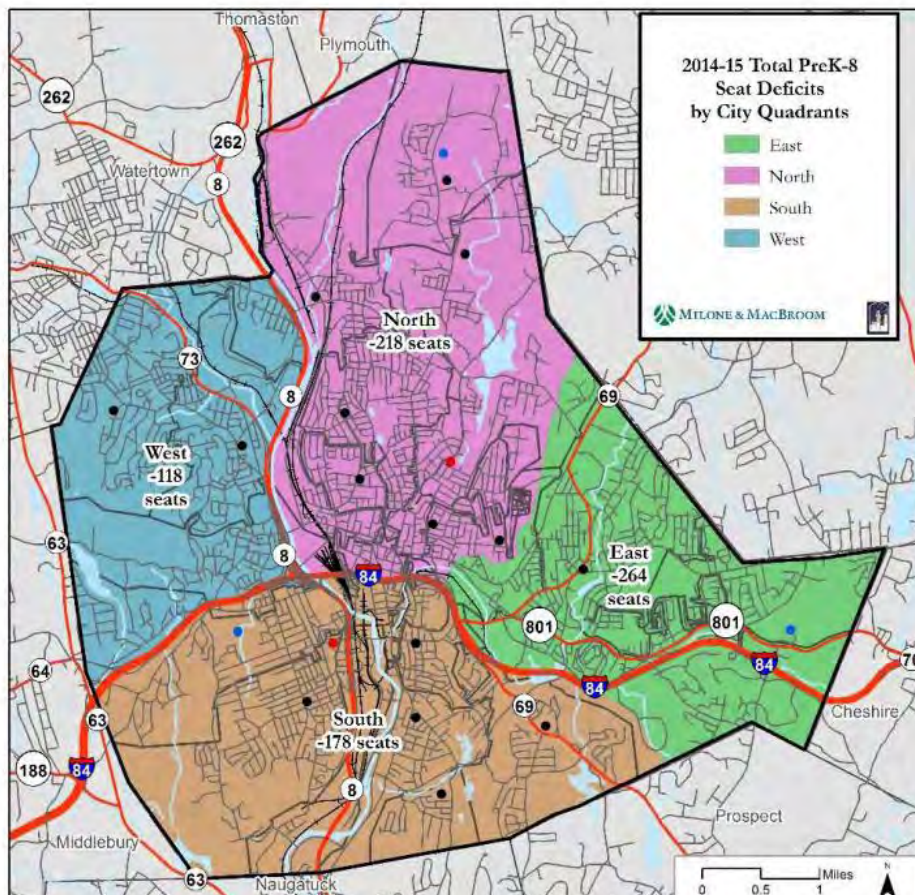


Figure 39: 2014-15 Total PK-8 Seat Deficits by City Quadrants

GROTON SCHOOLS - LONG-RANGE FACILITIES PLAN

Groton, CT

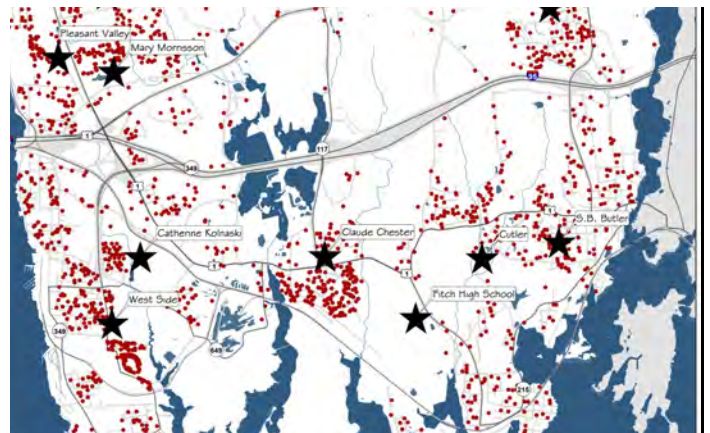
Completed: 2016



SLAM teamed with Milone & MacBroom on a long-range facilities plan for the City of Groton, CT. The project included a comprehensive analysis of the district enrollment projections, elementary, middle school and high school facility assessments and test fit studies in support of potential re-districting scenarios. SLAM's role was to inventory and evaluate the existing facilities in the context of the district educational specifications and prepare site and building test fits (feasibility studies) for new construction scenarios as well as prospective reuse scenarios (e.g. middle school converted to elementary). The project scope also included cost modeling for multiple facility upgrade/reuse scenarios to provide town leaders with the necessary decision making information and data for presenting the project for referendum.

Final scenario on which cost model was based:

- New Middle School for 1,000 students on undeveloped site
- Two Renovate-to-New existing Middle School conversions to PreK-5 schools for 600 students
- Successful referendum 11/2016 for \$184.5M



- Compact bldg. design can be accommodated – proximate to High School, works with existing topography
- Wetlands preserved
- Independent access for Middle School with controlled access to High School site
- Middle School site PE/ athletic program has been met
- Existing HS PE/ athletic program preserved and complimented
- Met with DEEP Open Space and Watershed Land Acquisition to Discuss Middle School Concepts and Deed Restrictions.
 - Identified Mechanism and process for conversion of Merritt Property (+/- 35 ac) to a municipal educational use.
 - Continue dialogue with DEEP to develop a conversion agreement if SFITF desires to move forward with Merritt Concept



HARTFORD PUBLIC SCHOOLS - FEASIBILITY STUDY/LONG RANGE FACILITY PLAN

Hartford, CT

Completed: 2016

Program Name	2015/16 Enrollment	Study Capacity	Study Capacity % Utilization
Zone 1	5,291	8,762	60%
Zone 2	3,611	5,272	68%
Zone 3	5,765	7,069	82%
Zone 4	7,408	9,142	81%
District Total	22,075	30,244	73%

Notes:

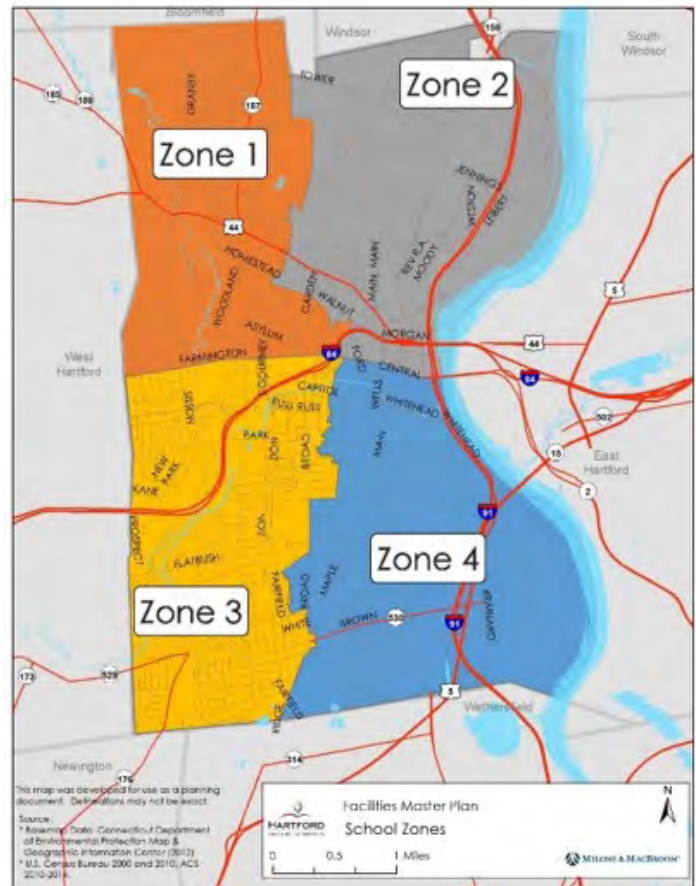
1. Seat capacities include an operational efficiency factor of: 95% for Magnets and district schools of grade configuration PK-6 and 85% for PK-8PK-12, Middle and High school grade configurations.

SLAM teamed with Milone & MacBroom on this project which consisted of inventory, assessment and capacity analysis of all 52 schools in the Hartford district. The work also included the development of planning options for facilities best use moving into the future to address changing enrollment dynamics in the context of magnet choice and open choice opportunities in the Greater Hartford region.

The goals of this study were to:

- Ensure quality educational seats are available to Hartford Public Schools students and families
- Maximize seats in magnet and highest performing schools
- Reduce excess capacity beginning in 2017-18
- Minimize transportation burden of consolidations
- Find a home for Montessori @ Moylan in 2017-18
- Find a home for Achievement First Summit in 2017-18
- Find a home for New Visions in 2017-18

Three resulting scenarios were proposed to the client.



RIDGEFIELD PUBLIC SCHOOLS - FACILITY CAPACITY AND UTILIZATION STUDY

Ridgefield, CT

Completed: 2016

Ridgefield Public Schools (RPS) contracted with The S/L/A/M Collaborative and Milone & MacBroom, Inc. to conduct a facility capacity and utilization study for its PK-12 school buildings. The purpose of the study was to assess options that better align the district's facilities to projected enrollments and educational objectives over the next decade.

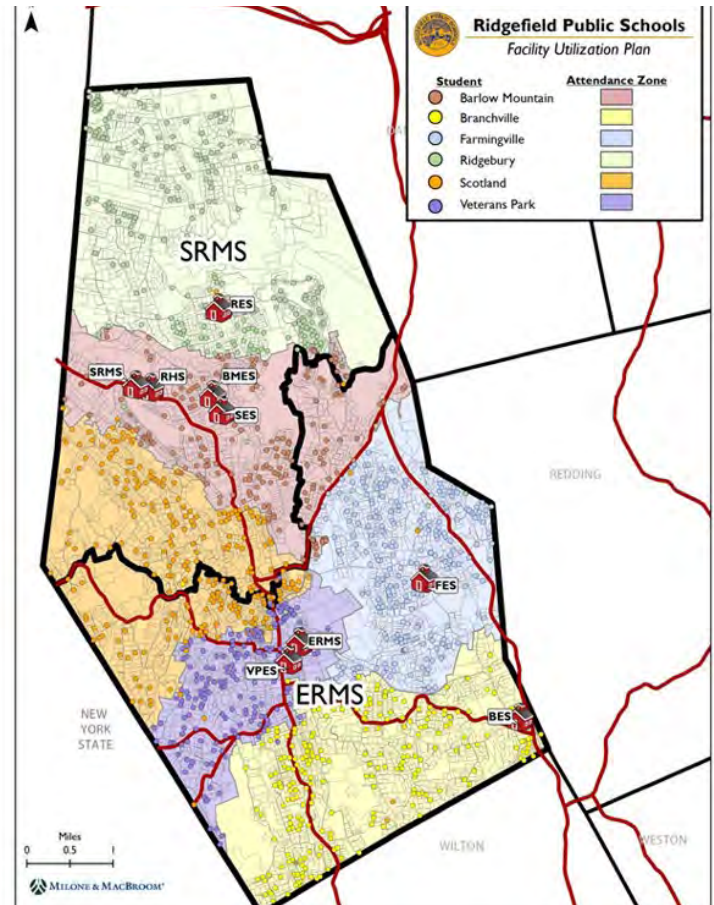
The first step in determining building capacity is to determine the number of classrooms available for grade-level instruction. Rooms currently used for instruction, portable classrooms, and unassigned classrooms were used in building capacity calculations. Shared spaces and support services were excluded from the capacity calculations. The Study Capacity was calculated using a blend of two methodologies - contract capacity and space capacity. Contract capacity loads each classroom based on class size guidelines as stated in the RPS teacher contract regardless of the size of the classroom. The second methodology determined capacity based on the size of the classroom, with larger classrooms having a higher capacity than smaller classrooms.

Enrollment Projections

In order to estimate facility needs over the next decade, MMI developed 10-year enrollment projections through the 2026-2027 school year. This included by-school and by-grade projections. The projections were developed based on an in-depth analysis of historic enrollment trends, home sales, new home construction, demographics, births, and economic conditions. Low, medium, and high enrollment projection models were developed, each with different assumptions of future conditions.

Facility Capacity and Utilization

Using floor plans and room utilization information collected from RPS, SLAM conducted a space inventory for each school building. The inventory identified the number of full-size classrooms used for grade-level instruction, rooms used for support services such as special education, as well as shared spaces such as art and music classrooms, gymnasiums, cafeterias, libraries, and computer labs. This information was verified through meetings with building leadership and administrators and supplemented with on-site visits where necessary.



EAST PROVIDENCE HIGH SCHOOL - FACILITIES ANALYSIS

East Providence, RI

Completed: 2017

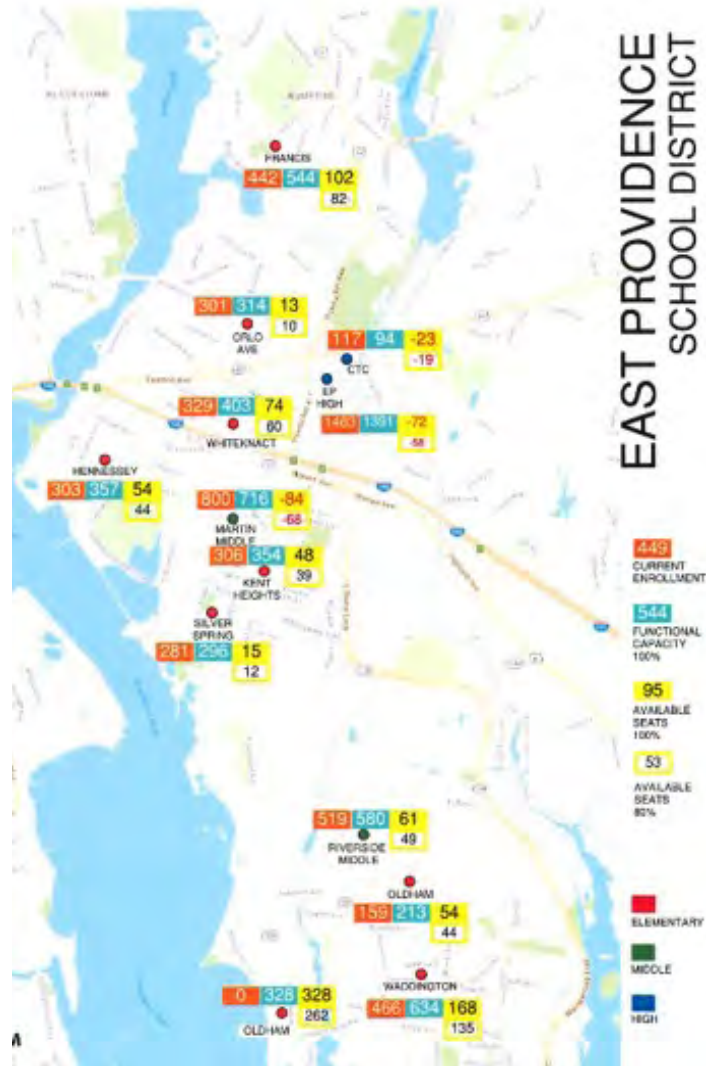
East Providence Public Schools Facilities Analysis



In January of 2017 SLAM teamed with Studio JAED to conduct a study of all twelve East Providence schools to determine both facility conditions, needs assessment and classroom capacity. In the analysis, which was conducted to prioritize projects for the district, two issues rose to high priority. First was a lack of parity in the middle schools buildings and their ability to support 21st century educational pedagogies. The second was the physical condition of the high school. The school had little work done on it since its construction in 1952 and its infrastructure was in total need of replacement. Additionally, its configuration did not support present day STEAM learning environments and collaboration.

The study included a cost comparison of renovation and new construction to assist the District in determining a path forward to deliver the best value to the community.

General repairs and improvements are underway at multiple schools while the District is planning for a replacement of the high school. The new building will consolidate with its current technical facility to maximize their reimbursement from the State.



SCOPE OF SERVICES:

- Initiate a facility analysis and assessment of High School, Middle Schools & Elementary school buildings
- Review of enrollment projections and building capacity of each school for redistricting opportunities
- Development of cost scenarios for capital plan and maintenance
- Develop goals / strategies & options for grade configurations and school consolidation
- Identify priority projects and timeline for implementation
- Identify future programs (i.e. Pre-K) for possible inclusion and building reuse opportunities



Elementary and Middle Schools Facility Utilization Analysis and Redistricting Study

Waterbury, CT

CLIENT

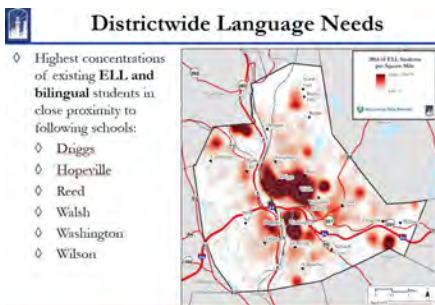
City of Waterbury
Waterbury, CT

Services Provided

- Facility Master Plan
- Comprehensive Enrollment Analysis
- Facilities Utilization Analysis
- School Redistricting

The City of Waterbury contracted with Milone & MacBroom to conduct a facility utilization and redistricting study for the city's elementary and middle schools. The study intended to assess current facility utilization and projected enrollments and make recommendations regarding changes in districts and/or the city's school facility portfolio. Facing historic high enrollments, Waterbury's elementary schools are overcrowded. At the same time, the city's recent school construction program began the conversion to PK-8 neighborhood schools, resulting in a mix of PK-5, 6-8, and PK-8 schools in the district. The project team conducted a thorough analysis of enrollment patterns and trends to identify neighborhood enrollment trends and school facility needs. In addition, a detailed inventory of all existing elementary and middle schools facilitated a benchmarking and utilization analysis to determine the functional seat capacity of the district's current buildings compared to current and projected enrollments. The analysis identified a need for approximately 1,000 more seats in the district.

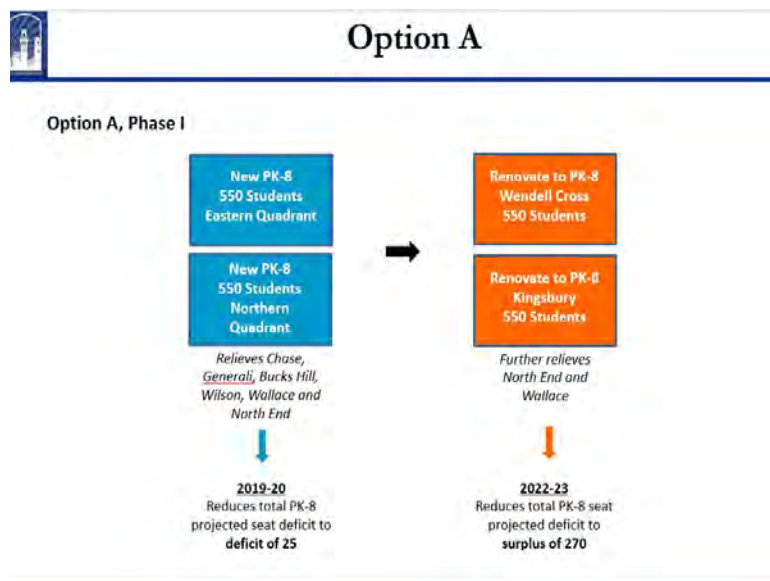
The project team then developed and analyzed several alternatives for new construction and/or renovation and expansion of existing facilities to not only add capacity to the elementary and middle school system, but also further the district's movement towards the PK-8 neighborhood school model. The analyses examined the impacts to school district boundaries and enrollments and facilities, in addition to providing cost estimates. The project team discussed these alternatives at multiple Board of Education and Board of Aldermen public meetings prior to writing a final report and recommendations.



Option A – Phase I Impacts (2014-15 Enroll)

School	Functional Capacity	Existing Conditions		% Utilized	Option A		Net Change in Students	
		Existing Enrollment	Surplus/Deficit		Proposed Enrollment	Surplus/Deficit		
Chase	714	816	(102)	114%	651	63	91%	-163
General	352	603	(251)	109%	344	8	99%	-59
Glasman ^{1,2}	464	566	(102)	109%	453	11	98%	-53
Hopeville	467	475	(8)	102%	430	37	92%	-45
Wendell Cross ²	400	366	34	92%	359	41	90%	-7
Kingsbury ²	400	312	(88)	78%	331	69	83%	-161
Sprague	456	461	(5)	101%	389	41	90%	-72
Regan	223	279	(56)	125%	207	16	93%	-72
North End MS	987	1,016	(29)	115%	851	36	96%	-165
Wallace MS ²	939	1,139	(200)	121%	994	(35)	104%	-165
North Quad (New) ²	350	-	-	-	343	7	98%	343
East Quad (New) ²	350	-	-	-	349	1	100%	349

¹ Glasman School is PK-8, with enrollment includes all grades
² Wendell Cross and Kingsbury will be converted to 550 PK-8 schools. MS enrollment cannot exceed 800



Groton Schools Long-Range Facilities Plan

Groton, CT

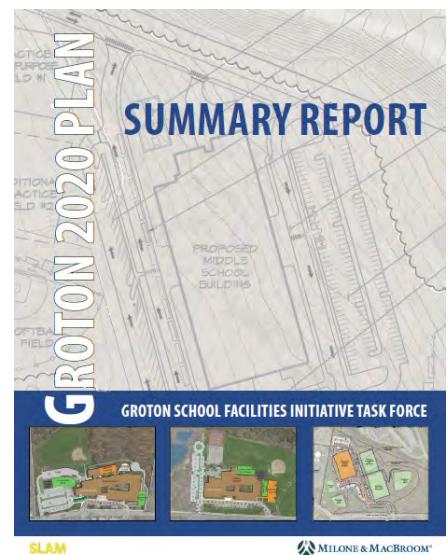
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Groton Public Schools
Groton, CT

Services Provided

- Facility Master Plan
- Facilities Evaluation
- Enrollment Analysis & Projections
- Public Planning Process for New Construction/Renovation
- Environmental Phase I Site Assessments
- Site Test Fits for Construction
- State Grant Application

Milone & MacBroom assisted the Town of Groton in developing a long-range master plan for its school facilities, including new construction and school consolidation. Changing demographics and aging elementary and middle school facilities in need of significant capital investment prompted the town to pursue a comprehensive long-term facilities plan. Working with a broadly representative task force, Milone & MacBroom evaluated facilities conditions, assessed educational programming needs, and analyzed enrollment trends and developed enrollment projections. Using GIS analysis and working with town Administrators and the Task Force, Milone & MacBroom identified preferred sites for new school construction. The project team, including an architectural subconsultant, developed site test fits, drafted conceptual plans, and developed cost estimates and alternative school facilities plans. A telephone survey was conducted to gauge community sentiment regarding alternatives in order to direct public outreach efforts and to ensure the plan aligns with community needs and expectations. Milone & MacBroom also conducted Environmental Phase I Site Assessments of selected potential construction sites, and coordinated submission of State forms for the grant application to the CT Department of Construction Services.



District Wide & School Specific Enrollment Projections

Hartford, CT

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Hartford Public Schools
School Building Committee
Hartford, CT

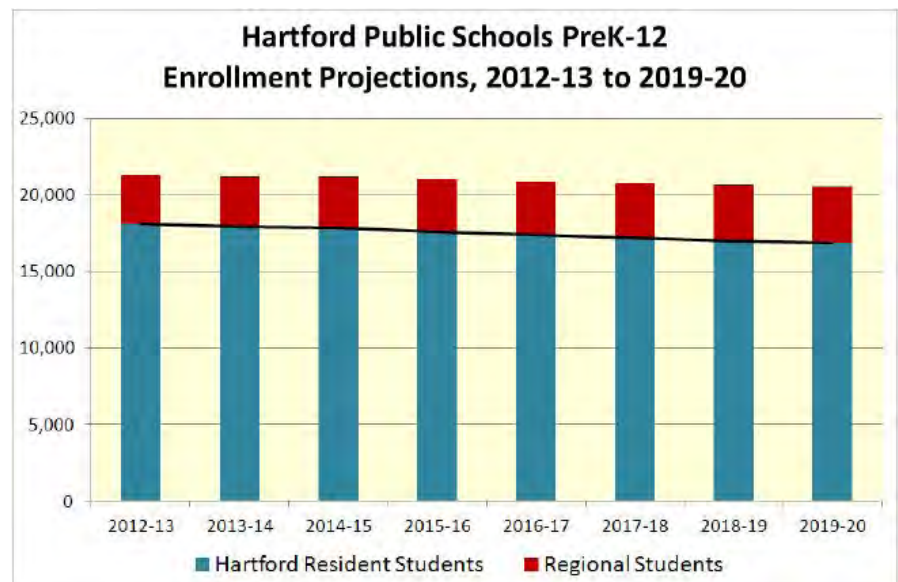
Services Provided

- School Enrollment & Demographic Analysis
- Enrollment Projections

Milone & MacBroom provides annual enrollment projections for Hartford Public Schools' School Building Committee to facilitate planning for school construction projects. The Connecticut State Department of Education requires 8-year enrollment projections as a critical factor for determining reimbursement eligibility and project size.

The Hartford Public Schools (HPS) system consists of four different school models: neighborhood schools, choice schools (schools open to students from within one of four zones in the city), open choice schools (open to students from anywhere within the city or from within the region on a lottery basis), and regional open choice schools (magnet schools open to anyone from Hartford or the region on a lottery basis). Due to the regional component in HPS enrollments, Milone & MacBroom prepared a demographic analysis of the city and region. In addition, the enrollment analysis examined not only HPS enrollment trends, but also other regional educational providers' enrollment trends in order to account for competition in the regional educational market.

Milone & MacBroom developed modifications to the standard cohort-survival projection methodology in order to incorporate non-traditional external factors on enrollments, such as regional competition among educational providers. Enrollment projections were broken down into component pieces: Hartford resident students in HPS schools, HPS students attending regional or private schools, and regional students in the HPS system.



Norwalk Public Schools Master Planning & Projections

Norwalk, CT

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Norwalk Public Schools
Norwalk, CT

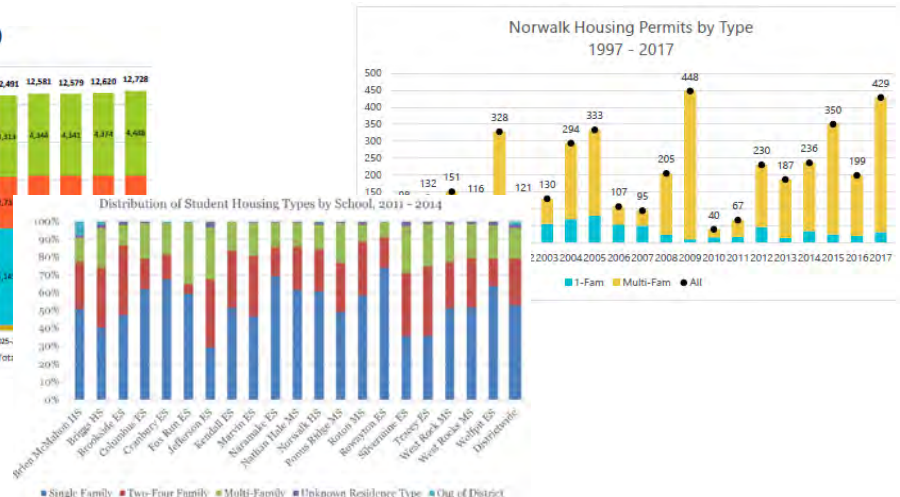
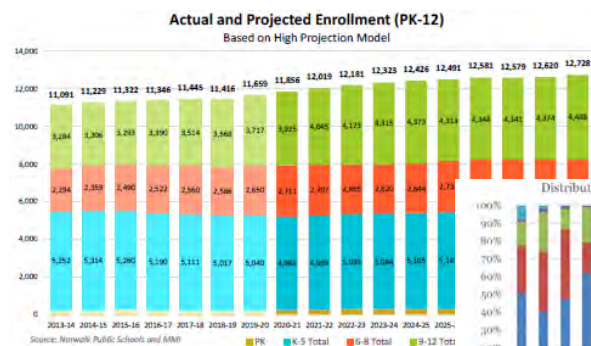
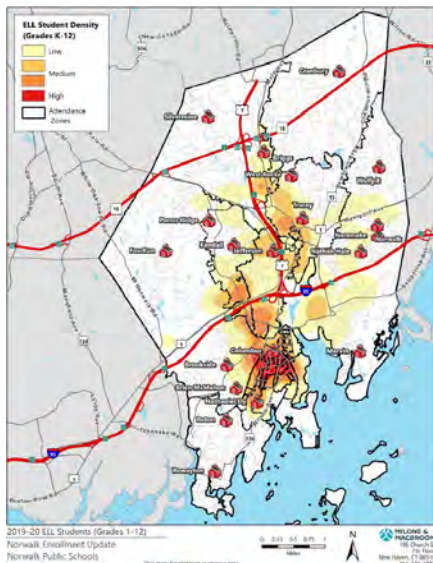
Services Provided

- Facility Master Planning
- Comprehensive Enrollment Analysis
- Facilities Utilization Analysis
- Facility Site Assessments
- Redistricting & Reconfiguration Scenarios
- Public Outreach

Milone & MacBroom assisted Norwalk Public Schools as part of an architectural team to conduct a facilities master plan for the district's schools. The study assessed current facility utilization and physical conditions, projected enrollments, and demographic and housing market trends to make recommendations to enhance the district's school facility portfolio and improve equity in educational resources across the district. This planning effort confronts the combined challenges of overcrowding in many elementary and middle schools and initiatives to increase the degree of school choice and educational equity within the system. The project team conducted a thorough analysis of enrollment patterns and trends to identify incoming enrollment trends in both stable and fast-changing neighborhoods.

Based on this analysis, the Master Plan provides a ten-year framework for modernization through major capital investments including renovations, repairs or additions to existing facilities, new construction proposals, and optimized facilities management operations to ensure that every Norwalk School facility meets educational standards, anticipates future demand and provides equitable opportunities for all Norwalk Students. The recommendations of the master plan are data driven and informed by broad-based community input. To support the Master Plan's goals, the project team developed and analyzed several scenarios for new construction and/or renovation and expansion of existing facilities, allowing for additional neighborhood schools where needed, introducing choice schools into the district's range of educational models, and allowing for the removal of portable classroom space and right-sizing of enrollment at currently overcrowded schools.

Since the completion of the Master Plan, Milone & MacBroom has been retained to provide continued enrollment and planning support for the Master Plan implementation.



Ten-Year Enrollment & Space Utilization Analysis

Stamford, CT

CLIENT

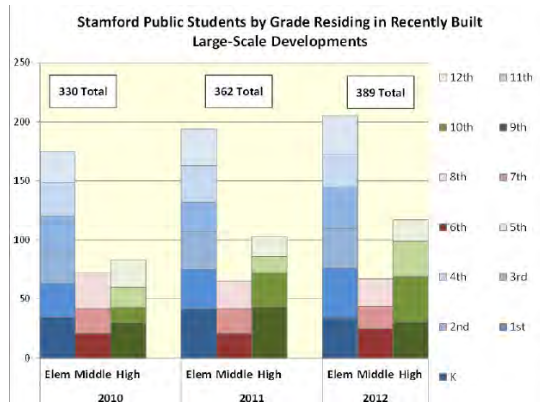
Stamford Public Schools
Stamford, CT

Services Provided

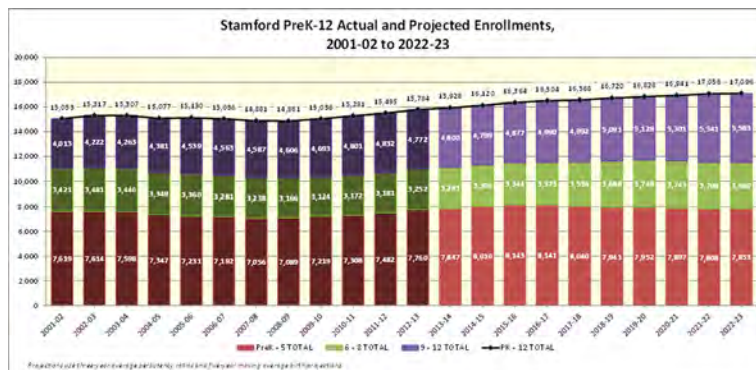
- Facility Utilization
- Enrollment Projections
- Reconfiguration Planning

Milone & MacBroom conducted an enrollment and facilities analysis for the Stamford School System (15,800 students). The project assisted the district in accommodating changes in enrollment trends and demographics and plan for efficient space utilization. The city has experienced significant housing growth and in-migration over the past several years and sought assistance in identifying how this trend has and will continue to influence enrollment trends.

Milone & MacBroom has analyzed demographic and housing trends, with a particular emphasis on recent large-scale residential development and the number of students generated by development type. The project team prepared district-wide enrollment projections disaggregated by school, grade, and race/ethnicity. In addition, a capacity and space utilization analysis of the district's 20 school facilities is underway. Following completion of these analyses, Milone & MacBroom worked with the Board of Education to generate and evaluate enrollment management options which will include short- and long-term options for overcrowding; new construction alternatives; reconfiguration, magnet program expansion, and/or consolidation of special programming.



School	K-5	PreK	Art	Music	CEU	ELL/ESL	Science	Reading/Math Resource	AS Other Arts	ASD	Meeting Room/ PD Office	SPED	OT/PT	K-Play Area	Empty Storage	New Arrival	Notes
Davenport	27	0	2	1*	1	1	1			2	2						*Plus 1 undersized
Hart	30	0	2	1	2	1	2	1	1				1				*Literacy/ ELL share room
KT Murphy	27	0	2	0	0*												*Comp room undersized
Newfield	31	0	1	0*	2	1				1	1						*Music undersized
Northeast	36	2	2	2	1	1	2			2	1						*5 regular Classrooms, one bilingual, each grade, PS ASD
Rogers IB K-8*	38	0	2	2	1	1	2	4			2						*Elementary Rooms not differentiated from middle
Roxbury	33	0	2	2	1	1	4			1	2		2				*Plus 1 undersized
Springdale	28	0	2	1*	2	1	1	2					1				*Some classrooms share programs, but are only counted once
Julia A. Stark	29	0	2	3	1	1	2			4	3*	1					*Music undersized
Stillmeadow	32	4	1	0*	0	0	1			1	1	1					*Comp room undersized
Toquam Magnet	34	0	2	5	0*		1	1		1			1	1			*Comp room undersized
Westover Magnet	40	2	2	3	2	1	2	5	2		2						





NEW HAVEN PUBLIC SCHOOLS

New Haven, CT

The Mayor's Energy Task Force for the City of New Haven, together with Gilbane Program Management, advanced a significant High-Performance Schools (HPS) initiative that may be among the first such comprehensive facility construction programs nationally. Some of the efforts OLA participated in included energy modeling for 24 schools, design of both Davis Academy for Arts & Design Innovation Magnet School and Metropolitan Business Academy as well as commissioning services for Christopher Columbus Family Academy. OLA also provided design and analysis services for the central utility plant (CUP) at Roberto Clemente Leadership Academy and Hill Regional Career High School, including the fuel-cell combined heat and power (CHP) system.

As verification of the efforts for the ongoing program, OLA provided follow-up site visits to a number of schools for the New Haven School District. These follow-up surveys and comprehensive studies provided ongoing analysis post occupancy to confirm the energy conservation measures included in the design were operating and saving energy as anticipated. This operational follow-up identified low/no cost items at each school that was investigated. Some of the items found during the study included but are not limited to:

- » Building systems that were not operating as intended.
- » After-hours energy use was excessive in several school.
- » Kitchen equipment is improperly used at all schools with respect to energy consumption
- » Maintenance items such as broken belts
- » Lighting schedule modified to reduce site lighting during the day

Operational issues were flagged and corrected soon after the audits. As a long-term energy analysis consultant, as well as design and commissioning provider for the Board of Education, OLA is familiar with the intended operation of the schools and this expertise provides a valuable perspective on operations and facility needs.

Additionally, OLA has worked closely with SLAM and Svigals on numerous projects, including the development of standards and comprehensive studies for the District as well as the Christopher Columbus Family Academy (Svigals) and the Metropolitan Business Academy (SLAM).





NEW YORK CITY SCHOOL CONSTRUCTION AUTHORITY

New York, NY

OLA holds a term contract with the New York City School Construction Authority (SCA). In this role, OLA has provided consultation on numerous standards and sustainable solutions, including electrification of systems to assist with the goals to achieve more renewable receptive infrastructure as the City moves to achieve their carbon reduction goals. OLA has provided consultation on geothermal system screening by creating a tool that leveraged NYC database information to help design teams screen various systems early in the design process. Another study looked at the feasibility of using heat pumps for domestic hot water generation. This effort included assessment as well as design and implementation of heat pump technologies. Earlier field measurement of domestic hot water usage informed the right-sizing of systems that are typically installed with far greater capacity than needed. OLA has informed the design standards as well as provided whole building energy analysis for numerous new schools being designed.

OLA performed assessment on a Net Zero project in Staten Island. This effort included assistance with a modification to the solar thermal system to photovoltaic panels requested by SCA. Design of the backup heating plant piping interconnection was included in the effort.

OLA performed ASHRAE Level 1 energy audits for 23 school buildings selected by SCA. These energy audits were conducted to assess each building's energy usage and identify possible energy conservation measures (ECMs) and capital improvements to consider in order to lower each building's energy consumption. For each school surveyed under this project, an associated Level 1 Energy Audit Report was issued to SCA. Each report includes the existing condition descriptions, utility bill analysis and recommended ECMs that could potentially reduce the overall energy consumption and operating costs of the particular building. OLA categorized the 23 schools using a common 'typology' approach. The typology for each school surveyed was developed in order to group schools together based on key similarities. The purpose of developing the typologies was to inform future energy retrofit projects where ECMs can potentially be applied to multiple schools of similar type. Grouping criteria include building footprint, square footage, year constructed, similar HVAC systems, etc. In order to reduce the overall energy consumption for these buildings, OLA recommended various short-term and long-term ECMs. Due to the similar construction types and existing HVAC systems found in the schools surveyed, many of the ECMs were applicable for multiple buildings. Two schools surveyed during the Level 1 audit were selected for further study under the SCA Level 3 energy audit.

OLA performed an ASHRAE Level 3 energy audit for School X062 located at 660 Fox Street, Bronx, NY and for School X120 located at 890 Cauldwell Avenue, Bronx NY. This energy study was conducted to assess potential ECMs and capital improvements to lower the building's energy consumption in order to achieve deep energy retrofit goals. The project's objective was to develop an energy master plan for School X062 and School X120 to help SCA achieve the goals set out in Executive Order 26 and NYC 80x50 Carbon Reduction. The project also is being used to inform the development of Level 3 audit guidelines for other SCA school buildings, which OLA is developing for SCA.





In the Summer of 2020, OLA was requested to provide an IAQ survey. This effort was part of a high-level survey where NYC was looking to assess schools for critical ventilation issues in preparation for the return to school in the Fall during the pandemic. An aggressive schedule was utilized, less than three weeks. OLA surveyed 18 schools and provided reports within the 3-week timeframe, and was part of a 30+ member engineering team tasked with surveying 1,500 NYC schools. Every classroom was visited and reports were provided for each school based on a template generated by SCA. OLA provided four teams to enable them to visit the schools and provide the reports within the aggressive schedule.





NEW CANAAN SCHOOLS

New Canaan, CT

CLIENT

New Canaan School District
(Saxe Middle School
Expansion/Renovation)

ARCHITECT

The S/L/A/M Collaborative

SIZE

25,000 sq. ft.

COST

\$10 Million

SERVICES PROVIDED

- » MEP Engineering
- » Fire Protection Engineering
- » Energy Engineering

PROJECT DESCRIPTION

In 2015, OLA first performed engineering consulting for New Canaan School District with the design of the expansion and renovation of the Saxe Middle School, which was originally constructed in 1957. The design included 25,000 sq. ft. of new construction for a budget of approximately \$10 million, and initiated the beginning of an ongoing relationship between OLA and the District.

Recently, OLA performed a design for a new boiler plant at Saxe Middle School. The plant is currently out for bid and is intended to replace aging equipment. In addition, a combined heat and power (CHP) plant is being considered to assist the District with obtaining more favorable utility costs. It was sized to optimize utilization of the power and waste heat. The CHP plant has been designed and is planned to be issued for bid in early 2021. Additionally, in Summer 2020, the District also called on OLA to assist with pandemic-related IAQ assessments to help ensure ventilation was available inside classrooms.





SANDY HOOK ELEMENTARY SCHOOL

Newtown, CT

CLIENT

Town of Newtown

ARCHITECT

Svigals + Partners, LLP

SIZE

87,000 sq. ft.

COST

\$50 Million



SERVICES PROVIDED

» Commissioning

PROJECT DESCRIPTION

Thoughtfully designed to not look like the secure fortress it actually is, the new Sandy Hook Elementary School is a state-of-the-art educational facility that encompasses a strong sense of community and the natural beauty of Newtown, CT. The three-winged structure spans nearly 87,000 sq. ft. and features a winding entrance tucked away from the main road, myriad surveillance cameras and floor-to-ceiling windows.

OLA collaborated with the project team to provide LEED fundamental and enhanced commissioning services. Designed to be more than an elementary school, but more a state of learning complex, the building incorporates high efficiency systems to enhance student experience. MEP systems include air cooled chiller, variable air volume air handlers, radiant ceiling panels, condensing domestic water heaters, occupancy sensor lighting controls, daylight dimming lighting controls and building management systems (BMS).

OLA provided a review of the design documents and submittals, checked out the BMS system and performed functional testing of systems. OLA worked closely with the design engineers, the architect (Svigals), the construction management team and all of the contractors. Training was verified and the issues that were identified were reviewed and resolved to the owner's/operator's satisfaction.

MASTER PLANNING FEATURED PROJECT

Westport Public Schools, Westport, CT

Project:

- Prepare a Master Plan to serve as a guide for 10 years of District planning.
- 8 Public Schools in total.
- Work with stakeholders across facilities, finance, operations, technology, and security to understand District's Vision for next decade of improvements.



Photo: Staples High School, Westport CT

Services Scope:

- Provide consulting services to prepare a Master Plan to guide the District in planning and understanding the costs and constraints for improving and adding to facilities over a 10-year timeline. The plan addresses the District's long and short-term goals and reflects the needs of the school community. The results of the Master Plan were used to assist the District's ranking of priorities and considerations in identifying future facility investments and improvements.

- Our office was tasked with the identifying and quantifying the Technology, Audio Visual, and Physical Security System needs. Specifically, the following systems were assessed:
 - Communication Cabling Infrastructure – Copper Horizontal & Fiber Backbone systems.
 - Audio Visual systems: Public Address, Interactive devices, and Local Sound Systems.
 - Phone Systems
 - Master Clock Systems
 - Physical Security Systems; Intrusion, Access Controls, Video Surveillance, Emergency Communications, Radios, Visitor Management, Duress, and Intercom-Video-Door-Release systems.



Approach:

- Conducted interviews with stakeholders.
- Conducted site surveys and inspections of existing systems.
- Assisted with creating educational specifications.
- Created Facilities Needs Assessment and Maintenance plans of systems listed above.
- Created detailed Cost Estimates for each recommendation.



Exhibit C Reference Check

Svigals + Partners

John DeStafano, Jr.

EVP, Start Bank of New Haven

Former Mayor, New Haven

203.435.1955 | johndestefanojr@gmail.com

Projects: Five New Haven K12 Schools - Edgewood, Martinez, Beecher, Columbus, and ESUMS

SLAM

Dr. Michael Graner

(Retired) Superintendent of Schools, Groton Public Schools

860.625.8002 | mgraner@groton.k12.ct.us

Milone & MacBroom

Neil O'Leary

Mayor, Waterbury

203.574.6712 | noleary@waterburyct.org

+ Fee Proposal

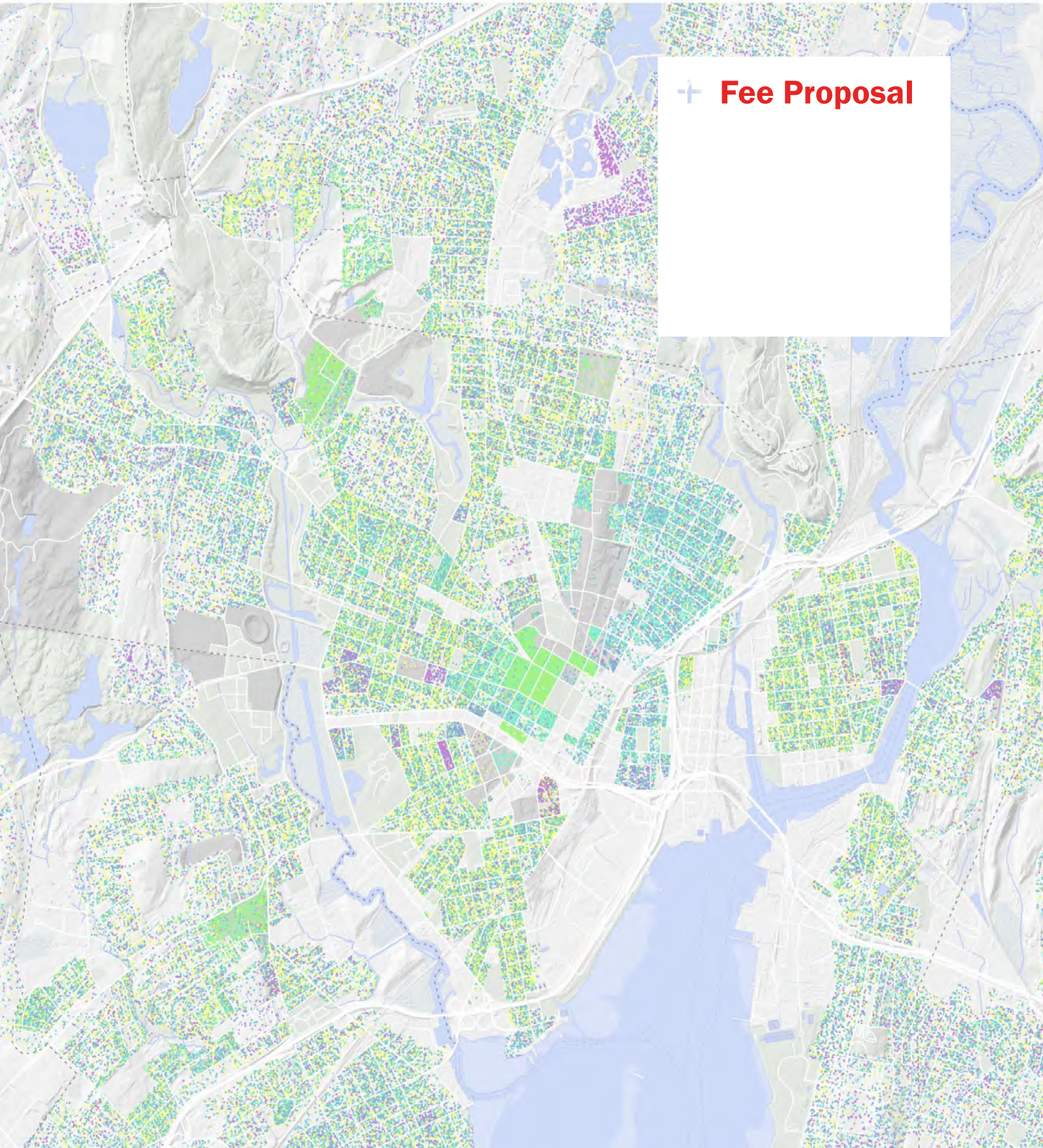


EXHIBIT A
PROPOSAL FORM

The undersigned, having become thoroughly familiar with the terms and conditions affecting the performance and costs of the services for a long range planning study, hereby proposes and agrees to fully perform the services for a long range planning study within the time stated and in strict accordance with the Proposal Documents and the "City of New Haven Form Contract for Professional Services" including furnishing any and all labor and materials, and to do all of the services for a long range planning study required to complete said services for a long range planning study in accordance with the Proposal Documents and the "City of New Haven Form Contract for Professional Services," for the following sum of money:

- | | |
|--|-----------|
| A. Demographic Analysis & Enrollment Projections | \$60,000 |
| B. Curricular and Programmatic Priorities | \$36,000 |
| C. Facility Conditions, Capacity and Utilization | \$204,000 |
| D. Master Planning | \$95,000 |

Total cost for services for a long range planning study: \$395,000

Three hundred ninety-five thousand----- Dollars.

Warranties and exclusions:

Please refer to our Project Understanding and Project Approach, included in this proposal, for a detailed definition of our proposed Scope of Work. Should you feel that our proposed Approach and Scope need adjustment to better suit your needs, we would welcome that discussion and be open to revising our fee accordingly.

Signed: _____

Svigals+Partners, LLP

Proposer's Name

By: Jay M. Brotman, AIA

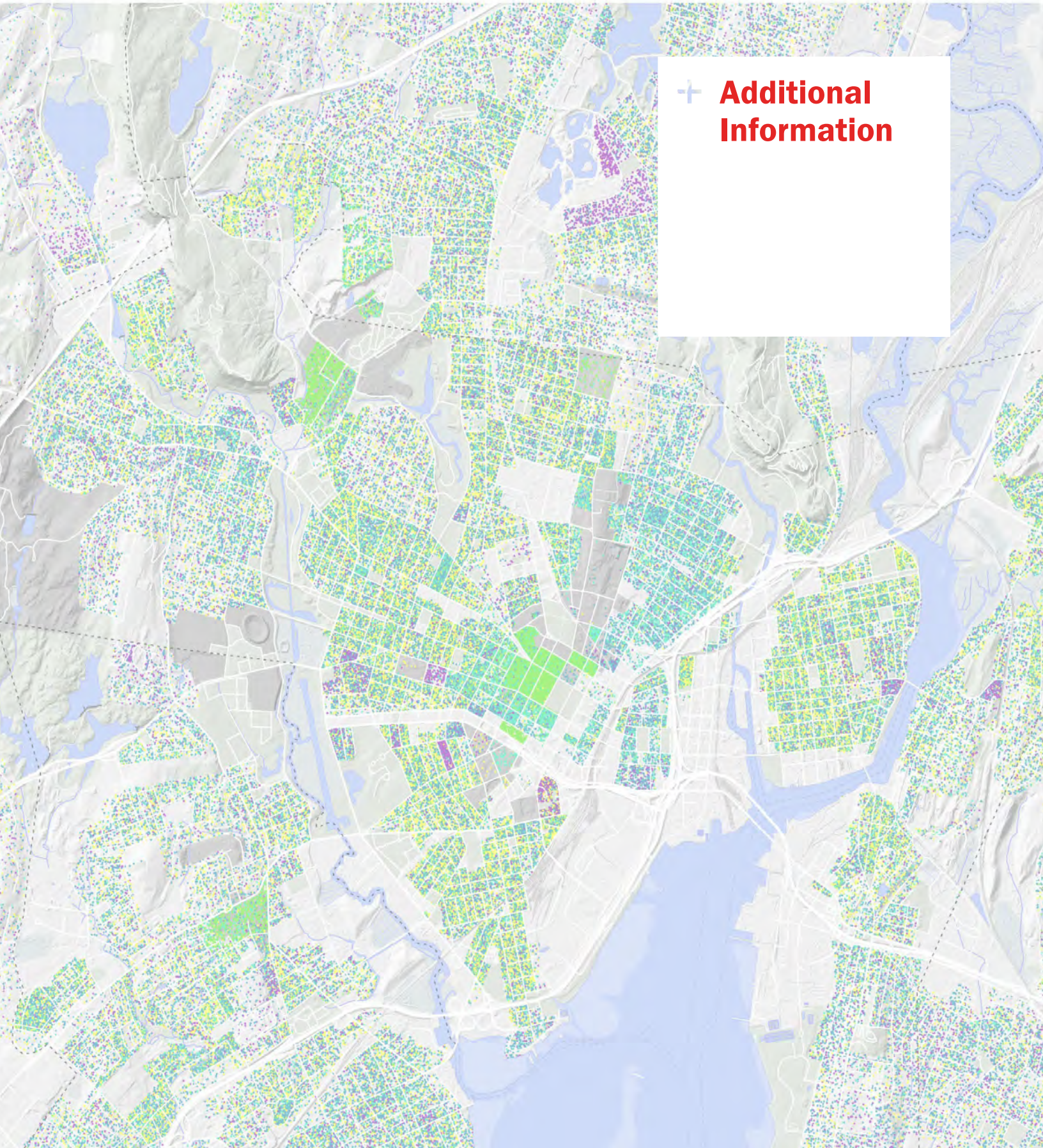
Name
Managing Partner

Its
84 Orange Street

Street
New Haven, CT 06515

City/State Zip
January 5, 2021

Date



+ **Additional
Information**

Licensure



STATE OF CONNECTICUT ♦ DEPARTMENT OF CONSUMER PROTECTION

Be it known that

GLENN R GOLLENBERG

has been certified by the Department of Consumer Protection as a licensed

ARCHITECT

License # ARI.0011445

Effective: 08/01/2020

Expiration: 07/31/2021



Michelle Seagull, Commissioner

STATE OF CONNECTICUT ♦ DEPARTMENT OF CONSUMER PROTECTION

Be it known that

KEMP ANDREW MORHARDT

has been certified by the Department of Consumer Protection as a licensed

ARCHITECT

License # ARI.0014580

Effective: 08/01/2020

Expiration: 07/31/2021



Michelle Seagull, Commissioner



SECRETARY OF THE STATE

MAILING ADDRESS: COMMERCIAL RECORDING DIVISION, CONNECTICUT SECRETARY OF THE STATE, P.O. BOX 150478, HARTFORD, CT 06115-0478
 DELIVERY ADDRESS: COMMERCIAL RECORDING DIVISION, CONNECTICUT SECRETARY OF THE STATE, 30 TRINITY STREET, HARTFORD, CT 06103
 PHONE: 860-509-6003 WEBSITE: [WWW.CSR.STATE.CT.US](http://www.csr.state.ct.us)

**CERTIFICATE OF AMENDMENT
 DOMESTIC & FOREIGN
 LIMITED LIABILITY PARTNERSHIP**

USE INK. COMPLETE ALL SECTIONS. PRINT OR TYPE. ATTACH 8 1/2 X 11 SHEETS, IF NECESSARY.

FILING PARTY (CONFIRMATION WILL BE SENT TO THIS ADDRESS): NAME: Deborah Ferrell ADDRESS: 84 Orange Street CITY: New Haven STATE: CT ZIP: 06510		FILING FEE: \$120 MAKE CHECKS PAYABLE TO "SECRETARY OF THE STATE"
1. NAME OF LIMITED LIABILITY PARTNERSHIP: Svigals + Partners, LLP		
2. TEXT OF EACH AMENDMENT: Amend the Partners to reflect: Jay Brotman, Managing Partner Robert Skolozdra, Partner Christopher Backstael, Partner		
EXECUTION: DATED THIS 24th DAY OF June 2020		
NAME OF SIGNATORY (print or type)	CAPACITY/TITLE OF SIGNATORY	SIGNATURE
Jay Brotman	Managing Partner	

STATE OF CONNECTICUT }
OFFICE OF THE SECRETARY OF THE STATE } SS. HARTFORD

I hereby certify that this is a true copy of record
in this Office.

In Testimony whereof, I have hereunto set my hand
and affixed the Seal of said State, at Hartford,

this 26TH day of June A.D. 2020

Daniel H. Miller

SECRETARY OF THE STATE *DM*

CERTIFICATION:

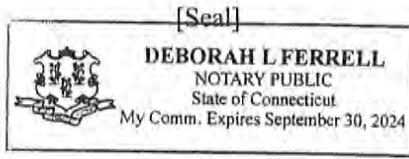
The Proposer has read and understood the Proposal Documents, INCLUDING ALL EXHIBITS, which are Exhibit A through Exhibit D, all attached hereto and made a part hereof, and the following addendum: Addendum One and Two (if any. If none, state "None"), and the Proposal conforms to the terms and conditions of the Proposal Documents.

I hereby certify, as an officer of Sviglas + Partners, LLP, that, as the Proposer under these Proposal Documents, all of the information and material supplied to the Board as required by these Proposal Documents are complete and true. I, as an officer of Sviglas + Partners, LLP, understand that all of the terms and conditions of these Proposal Documents shall be included in the Contract executed with the Board, if awarded the Contract. I, as an officer of Sviglas + Partners, LLP, further understand that any information that is found to be incomplete or false or, any attempt to mislead the Board is discovered, either during the evaluation or subsequent to any award may result in the disqualification of the Proposal or the immediate termination of the Contract.

Signature  Date 1/11/2021

Name Jay Brotman Title Managing Partner

Notary Public 



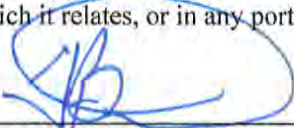
Proposer Information

Company: Sviglas + Partners, LLP
Address: 84 Orange Street
City New Haven State CT Zip 06510
Telephone: 203-786-5110
Fax: 203-786-5330

EXHIBIT D

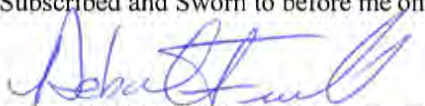
NON-COLLUSION STATEMENT

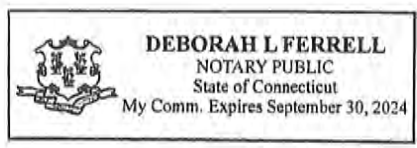
The undersigned hereby declares that this Proposal is made without any connection with any other person or person making any proposal for the same items, that it is in all respects fair and without collusion or fraud and that no person acting for or employed by the Board is directly or indirectly interested in the proposal or in the services to which it relates, or in any portion of the profits therefrom.

Signed: 
Svigals + Partners, LLP
Proposer's Name
By: Jay Brotman
Name
Managing Partner
Its
84 Orange Street
Street
New Haven, CT 06510
City/State Zip
1/4/2021
Date

STATE OF CONNECTICUT:
SS New Haven
COUNTY OF: New Haven

Subscribed and Sworn to before me on this 4th day of January, 2021.


Notary Public





Statement of Qualifications

Statement of Qualifications:

Each solicitation response shall include a Statement of Qualifications in the format provided in this Solicitation upon stationary of the responding entity.

All questions must be answered, and the data given must be clear and comprehensive. The respondent may submit any additional information he/she desires.

1. Name of Vendor/Contractor/Respondent (requires a real person's name)

Jay Brotman, AIA | Managing Partner of Svigals + Partners, LLP

2. Permanent main office address

84 Orange Street | New Haven, CT 06510

3. Contact Information: Phone, Fax, **E-mail**

Phone (203) 786-5110

Fax (203) 786-5330

E-Mail jbrotman@svigals.com

4. When organized

1983

5. Legal form of ownership. If a corporation, where incorporated.

Limited Liability Partnership

6. How many years have you been engaged in services, under your present name?

38

7. Experience in work similar in scope of services and in importance to this solicitation opportunity. Provide three references.

- Proposals are currently or previously been provided, include for each client:

Waterbury Public Schools Facility Utilization/Redistricting Study (Milone & MacBroom and SLAM Collaborative)

- Name of Organization

City of Waterbury, Waterbury Board of Education

- Gross cost of agreement

\$152,000

- Date services started

January - August 2015

- Services being provided

Enrollment projections, capacity and utilization across the district

- Responsible official, address and telephone number of person available as a reference.

Mayor Neil O'Leary, Mayor of Waterbury | City of Waterbury, City Hall Building, 236 Grand Street, 2nd Floor, Waterbury, CT 06702 | (203) 574-6712

Charles L. Stango, Waterbury Board of Education | Waterbury Public Schools, 236 Grand Street, Waterbury, CT 06702 | (203) 560-2565

8. Have you ever failed to complete any work awarded to you? If so, where and why? No

9. Have you ever defaulted on a contract? If so, where and why?

No

10. Describe any pending litigation or other factors, which could affect your organization's ability to perform this agreement

. There are no pending litigation

11. Names, titles, reporting relationships, and background and experience of the principal members of your organization, including the officers. Indicate which individuals are authorized to bind the organization in negotiations with the City of New Haven

Jay Brotman, AIA | Managing Partner, Bob Skolozdra, AIA, LEED AP | Partner, Chris Bockstael, AIA | Partner

12. Name, title, address and telephone number of the individual to whom all inquiries about this Proposal should be addressed.

Cheryl Hart | Director of Marketing/Business Development, 84 Orange Street | New Haven, CT 06510, (203)786-5110

13. Will you, upon request, fill out a detailed financial statement and furnish any other information or sign a release that may be required by the City of New Haven?

Yes

14. Tax Identification number(s) 06-1619295

15. Are you able to receive Credit Card Payments for your services rendered? No

16. Addendums - notices are sent electronically and are posted to portal. You are responsible for the addendum content whether viewed or not. (See section **Interpretation of Addenda for details**)



**DISCLOSURE &
CERTIFICATION AFFIDAVIT**

EVERY SECTION MUST BE COMPLETED
For help completing this form contact 203-946-8201

Contractor/Vendor Name:	Svigals + Partners, LLP
Address:	84 Orange Street New Haven, CT 06510
Telephone and/or Fax #:	T: (203) 786-5110 F: (203) 786-5330
Email Address:	jbrotman@svigals.com
Contact Person:	Jay Brotman, AIA Managing Partner

For the purposes of this Disclosure and Certification Affidavit, the following definitions apply:

(a)	"Person" means one (1) or more individuals, partnerships, corporations, associations, or joint ventures.
(b)	"Contract" means any agreement or formal commitment entered into by the city to expend funds in return for work, labor, services, supplies, equipment, materials or any combination of the foregoing, or any lease, lease by way of concession, concession agreement, permit, or per agreement whereby the city leases, grants or demises property belonging to the city, or otherwise grants a right of privilege to occupy or to use said property of the city.
(c)	"City" means any official agency, board, authority, department office, or other subdivision of the City of New Haven.
(d)	"Affiliate Entity" means any entity listed in sections 9 or 10 below or any entity under common management with the Contractor.

State of	Connecticut	County of	New Haven
I,	Jay Brotman <small>(type or print your name above)</small>		being first duly sworn, hereby deposes and says that:
1.	I am over the age of 18 and understand the obligations of making statements under oath; I understand that the City of New Haven is relying on my representations herein.		
2a.	I am the corporate secretary or majority owner (including sole proprietorship) of	Svigals + Partners, LLP Insert Company Name above	
2b.	Or I am an individual and my name is:	If an individual, insert your name above	
3.	I am fully informed regarding the preparation and terms of the above referenced agreement (the "Agreement") and of all pertinent circumstances related thereto.		
4.	Please select the applicable representation(s) regarding taxes or, if none of the below are accurate, attach an explanation of the status of the relevant tax obligations to this Affidavit (mark an "X" in the appropriate box or "NA" if none apply).		
4a.	<input checked="" type="checkbox"/>	As required by Conn. Gen. Stat. §12-41, the Contractor (and each owner, partner, officer, authorized signatory or Affiliate Entity of the Contractor) has filed a list of taxable personal property with the City of New Haven for the most recent grand list and all taxes are current.	
4b.	<input type="checkbox"/>	The Contractor (including any owner, partner, officer or authorized signatory thereof) is not required to file a list of taxable personal property with the City of New Haven for the most recent grand list and does not owe any back taxes to the City of New Haven, either directly or through a lease or other agreement.	
4c.	<input type="checkbox"/>	The Contractor or an owner, partner, officer, representative, agent or Affiliate Entity of the Contractor either i) has a PILOT agreement with the City of New Haven or ii) owes back taxes and has executed an agreement with the City of New Haven to pay said back taxes in installment payments. Such agreement is attached and incorporated herein by reference and the payments under said agreement are not in default.	
5.	<input type="checkbox"/>	Other than as may be described in section 4 above, the Contractor (including any owner, partner, officer, other authorized signatory, or Affiliate Entity) does not have any outstanding monetary obligations to the City of New Haven.	
6.	Please select the applicable representation about the Contractor's business registration:		
6a.	<input checked="" type="checkbox"/>	Contractor is a Connecticut corporation, partnership, limited liability company or sole proprietorship and its Connecticut Secretary of the State Business ID #:	0680342 Insert State Registration # above
6b.	<input type="checkbox"/>	Contractor is a foreign corporation, partnership, limited liability company or sole proprietorship but is registered to do business in the State of Connecticut. The Contractor's Connecticut Secretary of the State Business ID #:	Insert State Registration # above
6c.	<input type="checkbox"/>	Contractor is a foreign corporation, partnership, limited liability company or sole proprietorship and is not registered to do business in the State of Connecticut. The Contractor is registered in the State of:	Please insert State name above
		Contractor has confirmed with the Connecticut Secretary of the State that the services it will provide pursuant to the Agreement do not constitute doing business in the State of Connecticut and no registration with the Connecticut Secretary of the State is required. Contractor does otherwise have the following State of Connecticut registrations, certificates or approvals relevant to the Agreement (if not applicable, state N/A).	

7. The following list is a list of the names of all persons affiliated with the business of the Contractor who are also affiliated with the City of New Haven. For purposes of this Affidavit, "affiliated with the business of the Contractor" includes any current or former employee (including officers) of the Contractor or any owner, board member or agent of the Contractor, or of any subsidiary or parent company of the Contractor, and "affiliated with the City of New Haven" means any employee, agent, public official, board member, commissioner or any other person serving in an official capacity for or on behalf of the City of New Haven. If none state none. Use additional sheet if necessary (must be on company letterhead and notarized):

	Name	City Affiliation Role & Time Frame	Contractor Affiliation Role & Time Frame	DOB
1	None			
2				

8. The following list is a list of all contracts in which either the Contractor, any person affiliated with the business of the Contractor or an Affiliate Entity of the Contractor provides, or has provided, services or materials to the City within one (1) year prior to the date of this disclosure. If none, state none. Use additional sheet if necessary (must be on company letterhead and notarized):

	Name of Contractor or Affiliate	Affiliation (if applicable)	Contract Number	DOB
1	Svigals + Partners, LLP		A10-0981	N/A
2				

9. The Contractor possesses an ownership interest in the following business organizations, if none, state none. Use additional sheet if necessary (must be on company letterhead and notarized):

	Organization Name	Address	Type of Ownership
1	None		
2			

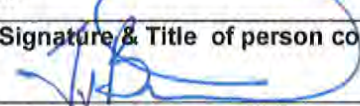
10. The following persons and/or entities possess an ownership interest in the Contractor. If the Contractor is a corporation, list the names of each stockholder whose shares exceed twenty-five (25) percent of the outstanding stock. If none, state none. Use additional sheet if necessary (must be on company letterhead and notarized):

	Name	Title	% of Ownership	DOB
1	Jay Brotman	Managing Partner	40	02/20/1956
2	Robert Skolozdra	Partner	30	12/16/1965

11. If the Contractor conducts business under a trade name, the following additional information is required: the place where such entity is incorporated or is registered to conduct such business; and the address of its principal place of business, if none, state none. Use additional sheet if necessary (must be on company letterhead and notarized):

	TRADE NAME	PLACE OF INCORPORATION/REGISTRY	PRINCIPAL PLACE OF BUSINESS
1	None		
2			

I hereby certify that I am duly authorized to sign this Affidavit and that the person who will sign the Agreement with the City on behalf of the Contractor will be duly authorized to execute the same. I hereby further certify that the statements set forth above are true and complete on the date hereof and that I, or another authorized individual of the Contractor, will promptly inform the City, in writing, if any of the information provided herein changes or is otherwise no longer accurate at any point during the execution of the above referenced Agreement. I understand that any incorrect information, omission of information or failure of the Contractor to update this information, as described in the foregoing sentence, may result in the immediate termination of any and all agreements the Contractor has with the City of New Haven and disqualification of the Contractor to further contract with the City.

Signature & Title of person completing this form:			
			
Jay Brotman, Managing Partner			
THIS FORM MUST BE NOTARIZED		NOTARY SEAL (if available)	
Signature of Notary:			
Subscribed and sworn to, before me on this:	4th	Day of	January 20 21
My Commission Expires:	September 30, 2024		

This form should be mailed or emailed to the contracting department or included with a specific solicitation.

(This form shall be updated if the Agreement contemplated hereby is not executed within six months of the date hereof.)

SVIGALS + PARTNERS

Additional information for Disclosure & Certification Affidavit

Continued from 10:

Name: Christopher Bockstael
Title: Partner
% of Ownership: 30%
DOB: 12.14.69

I hereby certify that the statements set forth above are true and complete, and I understand that any incorrect information or omission of information from this affidavit may result in the immediate termination of the Contractor's agreement with the City of New Haven.

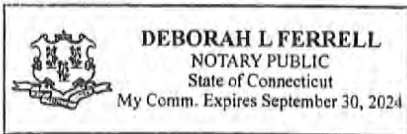
(Signed) _____

Title: Partner

Subscribed and sworn to before me this 4th day of January, 2021.

Deborah L Ferrell

Title: Notary Public




CERTIFICATE OF NON ARREARAGE

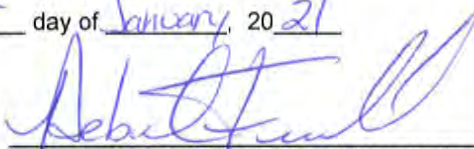
STATE OF CONNECTICUT)
)SS New Haven
COUNTY OF New Haven)

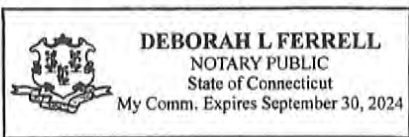
Jay Brotman being duly sworn deposes and says

1. He /She is the (owner, partner, officer, representative, or agent) of SUIGALS + PARTNERS LLP the Bidder that has submitted the attached Bid.
2. Neither the Bidder, nor its subcontractors are in arrears to the State of Connecticut Second Injury Fund.

(signed) 
Managing Partner
Title

Subscribed and sworn to before me this 4th day of January, 2021


Notary Public Commissioner
of the Superior Court



City of New Haven

Current Workforce Certificate

Equal Opportunities

Bidder/Proposer : Svigals + Partners, LLP

Address 84 Orange Street

City, State New Haven, CT

Zip Code 06510

JOB CATEGORIES	Racial Group													
	MALE					FEMALE								
	W	AA	HA	H	O	W	AA	HA	H	O	TOTAL			
Officials & Managers			1			4					5			
Professionals	7		1			12		1			21			
Technicians	1										1			
Sales Force														
Office & Clerical							1				1			
Craftsmen (skilled)														
Operatives (semi-skilled)														
Laborers (unskilled)														
Service Workers														
Total	8		2			16	1	1			28			

Are you a disadvantaged business enterprise? Yes No

Are you a women's business enterprise? Yes No

Does your company have an affirmative action plan? Yes No

W - White (Caucasian)
 HA - Hispanic American
 O - Other

AA - African American
 H - Handicapped

EQUAL EMPLOYMENT OPPORTUNITY AGREEMENT

During the performance of this contract, the Contractor agrees as follows:

- a. To comply with all provisions of Executive Order 11246 and Executive Order 11375, Connecticut Fair Employment Practices Act, and the contract compliance ordinance of the City of New Haven, including all standards and regulations which are promulgated by the government authorities who established such acts and requirements, and all standards and regulations are incorporated herein by reference;
- b. Not to discriminate against any employee or applicant for employment because of race, color, religion, age, sex, physical disability or national origin. The Contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment without regard to race, color, religion, sex, age, or national origin and physical handicap. Such action shall include, but not be limited to, the following: employment, upgrading, demotion or transfer, recruitment or recruitment advertising, layoff or termination, rates of pay or other forms of compensation, and selection for training, including apprenticeship;
- c. To post, in conspicuous place available to employees and applicants for employment, notices to be provided by the contracting officer setting forth the provisions of this nondiscrimination clause;
- d. To state, in all solicitations or advertisement for employees placed by or on behalf of the contract, that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, age, physical disability or national origin;
- e. To send to each labor union representative of workers with whom it has a collective bargaining agreement, or other contract or understanding, a notice advising a labor union or worker's representative of the contractor's commitments under the equal opportunity clause of the City of New Haven, and shall post copies of the notice in conspicuous places available to employees and applicants for employment. The contractor shall register all workers in the skilled trades, who are below the journeyman level, with the Apprentice Training Division of the Connecticut State Labor Department;
- f. To utilize labor department and city sponsored manpower programs as a source of recruitment and to notify the contract compliance unit and such programs of all job vacancies;
- g. To take affirmative action to negotiate with qualified minority contractors for any work which may be proposed for subletting, or for any additional services, or work which may be required as a result of this contract;
- h. To cooperate with city departments in implementing required contract obligations for increasing the utilization of minority business enterprises;
- i. To furnish all information and reports required by the Contract Compliance Director pursuant to section 12 1/2 -1, 12 1/2-19 through section 12 1/2-32, 12 1/2-48 through 12 1/2-52 and to permit access to his books, records and accounts by the contracting agency, the Contract Compliance Officer, and the Secretary of Labor for purposes of investigation to ascertain compliance with the program;
- j. If such contractor employs three or more employees to refrain from paying such employees dues and related expense for clubs that restrict membership use of their facilities on the basis of race, color, sex, religion, national origin or ancestry;
- k. To take such action, with respect to any subcontractor, as the City may direct as a means of enforcing the provisions of sub-paragraphs (a) through (m) herein, including penalties and sanctions for noncompliance, provided however that, in the event the contractor becomes involved or threatened with litigation as a result of such direction by the City, the City will intervene in such litigation to the extent necessary to protect the interest of the City and to effectuate the City's Equal Employment Opportunity Program, in the case of funded directly or indirectly, in whole, or in part, under one or more Federal Assistance Programs, the contractor or the City may ask the United States to enter into such litigation to protect the interest if the United States;
- l. To file, along with his subcontractors, if any, compliance reports with the City in the form and to the extent prescribed in the contract by the Contract Compliance Director of the City of New Haven. Compliance reports filed at such times as directed shall contain information as to the employment practices, policies, programs and statistics of the contractor and his subcontractors, if any;
- m. To include the provisions of sub-paragraphs (a) through (m) of this Equal Opportunity Clause in every subcontract or purchase order so that said provisions will be binding upon each such subcontractor or vendor;

n. That a finding, as hereinafter provided, of a refusal by the contractor, or subcontractor, to comply with any portion of this program as herein stated and described, may subject the offending party to any or all of the following penalties:

1. Withholding of all future payments under the involved public contract to the contractor in violation until it is determined that the contractor, or subcontractor, is in compliance with the provisions of the contract;
2. Refusal of all future Bids for any public contract with the City of New Haven, or any of its departments or divisions, until such time the contractor or subcontractor, is in compliance with the provisions of the contract;
3. Cancellation of the public contract;
4. Recovery of specified monetary penalties;
5. In case of a substantial or material violation, or the threat of substantial or material violation of the compliance procedure or as may be provided in for by the contract, appropriate equitable or legal proceedings may be brought to enforce these provisions against contractors, subcontractors or other organizations, individuals or groups who directly or indirectly are not in compliance with the policy herein outlined. (Ord. of 12-5-77).

In Witness WHEREOF, on the 4th Day of January 2021
the contract has caused two counterparts of this Agreement to be executed and delivered.

Witness: [Signature]
(signature)
[Signature]
(signature)

[Signature]
Contractor
Managing Partner
Title

See Project Summary for Applicability

City of New Haven Livable Wage Form

Internal Audit Division

CONTRACTORS LIVABLE WAGE CERTIFICATION FORM

I, Jay Brotman of SUIGALS + PARTNERS, LLP
Officer, owner, authorized rep. Company name

Do hereby certify that

Company Name	<u>SUIGALS + PARTNERS, LLP</u>
Address	<u>84 Orange Street</u>
City, State Zip	<u>New Haven, CT 06478</u>

and all of its subcontractors will pay all workmen on the:

_____ the Livable wages as indicated in Article XVII, Section 2-221 et seq. of the Code of the City of New Haven **

[Signature]
Signature of Above Company Official

** The Current Livable Wage per hour is detailed in the Project Summary. In the event that your firm's salary schedules are in excess of this amount, please provide documentation with your response. This may eliminate the need for weekly payroll submittals, however you may still be subject to spot audits.

Subscribed and sworn to before me this

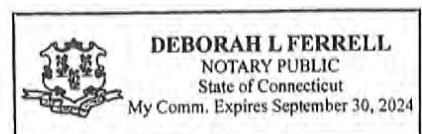
4th

day of

January 2021

[Signature]

Notary Public





City of New Haven
 Bureau of Purchases
 200 Orange Street Rm 301
 New Haven, CT 06510

www.newhavenct.gov/gov/depts/purchasing/

Telephone: (203) 946-8201 Fax: (203) 946-8206

NON-COLLUSION AFFIDAVIT OF PRIME BIDDER

State of Connecticut) County of (New Haven)

ss. New Haven

Jay Brotman

, being first duly sworn, deposes and says that:

1. He/She is (owner, partner, officer, representative, or agent) of Svigals + Partners, LLP
 the Bidder/proposer that has submitted the attached Bid/Bid. (Bidder/Proposer's name)

2. He/She is fully informed respecting the preparation and contents of the attached Bid/Bid and of all pertinent circumstances respecting such Bid/Bid;

3. Such Bid/Bid is genuine and is not collusive or sham Bid/Bid;

4. Neither the said Bidder/Proposer nor any of its officers, partners, owners, agents, representative, employees, or parties in interest, including this affiant, has in any way colluded, conspired, connived or agreed, directly or indirectly with any other Bidder/proposer, firm or person to submit a collusive or sham Bid/Bid in connection with the Contract for which the attached Bid/Bid has been submitted or to refrain from Bidding/proposing in connection with such Contract, or has in any manner, directly or indirectly, sought by agreement or collusion or communication or conference with any other Bidder/proposer, firm or person to fix the price or prices in the attached Bid/Bid or of any other Bidder, or to fix any overhead, profit or cost element of the Bid/Bid prices or the Bid/Bid price of any other Bidder/proposer, or to secure through any collusion, conspiracy, connivance or unlawful agreement any advantage against the City of New Haven or any person interested in the proposed Contract;

5. The price or prices quoted in the attached /Bid are fair and proper and are not tainted by any collusion, conspiracy, connivance, or unlawful agreement on the part of the Bidder/proposer or any of its agents, representatives, owners, employees, or parties in interest, including this affiant; and

6. That no Alderman or other officer or employee or person whose salary is payable in whole or in part from the City Treasury is directly or indirectly interested in the Bid/Bid, or in the supplies, materials, equipment, work or labor to which it relates, or in any of the profits thereof.

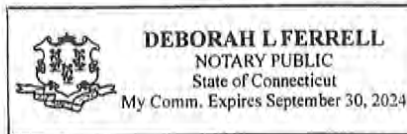
(Signed) [Signature]

(Title) Managing Partner

Subscribed and sworn to before me this 4th day of January 2021.

[Signature]
 Notary

(Title) 9/30, 21
 My commission expires



The City of New Haven's Priority Payment Program

THIS FORM MUST BE COMPLETED & RETURNED WITH YOUR SOLICITATION RESPONSE

The City of New Haven has launched a new initiative called the Priority Payment Program (PPP). The PPP provides its vendors the option to submit invoices electronically and quickly receive payments via direct deposit...in as little as 10-15 days.

Vendors who enroll in the PPP will receive prompt payment of their invoices in exchange for a small discount offered on the goods and/or services they provide to The City of New Haven. Enrolled vendors are given the flexibility of setting the percentage rate they wish to offer The City, based around initiating the payment 10 days after a valid invoice has been submitted.

If payment is released before or after the 10th day of submission, the PPP then utilizes dynamic discounting to determine the appropriate discount. Dynamic discounting is a rebate calculation method that's based on the number of days it takes for an invoice to get paid. This period begins on the date a valid invoice is submitted to The City and ends on the date payment is initiated by the Controller. The quicker The City of New Haven pays an invoice - the higher the discount paid by the vendor. The longer it takes to pay - the lower the discount.

For example, a vendor offering payment terms of 2% / 10 / Net 30 stipulates that if payment of the invoice is initiated on the 10th day after it was received, The City deducts 2% from the total amount of the invoice in exchange for prompt payment. If payment is initiated before day 10, the discount taken will be slightly higher than 2%. If payment is released after the 10th day, the discount amount will be less than 2% and incrementally decrease as each day passes. If The City pays the invoice 30 days after it was received, no discount is taken and the full amount is paid to the vendor.

This table illustrates how dynamic discounts vary based on the time taken before payment is initiated by the City Controller.

Invoice Amount	Net Terms	Targeted Pay Date	Chosen Rate
\$5,000.00	30	10	2.00%

Date Invoice Received	05/01/18	Paid on Day	Discount Calculation	Discount Amount	Net Payment to Vendor
If Paid on:	05/02/18	1	2.90% paid 29 days early	\$145.00	\$4,855.00
If Paid on:	05/03/18	2	2.80% paid 28 days early	\$140.00	\$4,860.00
If Paid on:	05/04/18	3	2.70% paid 27 days early	\$135.00	\$4,865.00
If Paid on:	05/05/18	4	2.60% paid 26 days early	\$130.00	\$4,870.00
If Paid on:	05/06/18	5	2.50% paid 25 days early	\$125.00	\$4,875.00
If Paid on:	05/07/18	6	2.40% paid 24 days early	\$120.00	\$4,880.00
If Paid on:	05/08/18	7	2.30% paid 23 days early	\$115.00	\$4,885.00
If Paid on:	05/09/18	8	2.20% paid 22 days early	\$110.00	\$4,890.00
If Paid on:	05/10/18	9	2.10% paid 21 days early	\$105.00	\$4,895.00
If Paid on:	05/11/18	10	2.00% paid 20 days early	\$100.00	\$4,900.00
If Paid on:	05/12/18	11	1.90% paid 19 days early	\$95.00	\$4,905.00
If Paid on:	05/13/18	12	1.80% paid 18 days early	\$90.00	\$4,910.00
If Paid on:	05/14/18	13	1.70% paid 17 days early	\$85.00	\$4,915.00
If Paid on:	05/15/18	14	1.60% paid 16 days early	\$80.00	\$4,920.00
If Paid on:	05/16/18	15	1.50% paid 15 days early	\$75.00	\$4,925.00
If Paid on:	05/17/18	15	1.50% paid 15 days early	\$75.00	\$4,925.00
If Paid on:	05/18/18	16	1.40% paid 14 days early	\$70.00	\$4,930.00
If Paid on:	05/19/18	17	1.30% paid 13 days early	\$65.00	\$4,935.00
If Paid on:	05/20/18	18	1.20% paid 12 days early	\$60.00	\$4,940.00
If Paid on:	05/21/18	19	1.10% paid 11 days early	\$55.00	\$4,945.00
If Paid on:	05/22/18	20	1.00% paid 10 days early	\$50.00	\$4,950.00
If Paid on:	05/23/18	21	0.90% paid 9 days early	\$45.00	\$4,955.00
If Paid on:	05/24/18	22	0.80% paid 8 days early	\$40.00	\$4,960.00
If Paid on:	05/25/18	23	0.70% paid 7 days early	\$35.00	\$4,965.00
If Paid on:	05/26/18	24	0.60% paid 6 days early	\$30.00	\$4,970.00
If Paid on:	05/27/18	25	0.50% paid 5 days early	\$25.00	\$4,975.00
If Paid on:	05/28/18	26	0.40% paid 4 days early	\$20.00	\$4,980.00
If Paid on:	05/29/18	27	0.30% paid 3 days early	\$15.00	\$4,985.00
If Paid on:	05/30/18	28	0.20% paid 2 days early	\$10.00	\$4,990.00
If Paid on:	05/31/18	29	0.10% paid 1 days early	\$5.00	\$4,995.00
If Paid on:	06/01/18	30	0.00% paid 0 days early	\$0.00	\$5,000.00

Visit <https://www.newhavenct.gov/gov/depts/finance/default.htm> and click on "Priority Payment Program" to read our FAQs and get more details Questions? Email onboarding@oxygen-finance.com or call us (866) 515-3860

Priority Payment Program Enrollment Agreement

City of New Haven

The City of New Haven is offering all bidders and active vendors the opportunity to enroll in their Priority Payment Program (PPP). Benefits include:

- Vendors decide what discount percentage they wish to offer off their goods/services in exchange for rapid payment processing
- Priority vendor status and enhanced customer service with The City of New Haven
- Electronic invoicing sent to one email address for quicker processing
- Invoices are typically processed and payment is initiated within 10 business days* via direct deposit to your bank account rather than waiting 30+ days for a check in the mail
- Email notifications will be sent for any invoices that are rejected, along with instructions on how to revise & resubmit for payment
- Remittance statements delivered via email to help simplify the A/R reconciliation process

THIS FORM MUST BE COMPLETED & RETURNED WITH YOUR SOLICITATION RESPONSE

Company: <u>Svigals + Partners, LLP</u>	Tax ID/EIN: <u>06-1619295</u>
Contact Name: <u>Jay Brotman</u>	Title: <u>Managing Partner</u>
Address: <u>84 Orange Street New Haven, CT 06510</u>	
Email: <u>jbrotman@svigals.com</u>	Phone: <u>(203) 786-5110</u>
Billing Contact Name: <u>Deborah Ferrell</u>	Title: <u>Office Manager</u>
Address: <u>84 Orange Street New Haven, CT 06510</u>	
Email: <u>dferrell@svigals.com</u>	Phone: <u>(203) 786-5110</u>

PLEASE NOTE: While enrolled in the Priority Payment Program, the rebate terms you choose will apply to all invoices submitted after the date this agreement is signed for all active and future contracts with The City of New Haven. Vendors can opt out of the program at any time by contacting Oxygen Finance via phone or email, but must wait a period of 12 months before enrollment eligibility is reinstated.

Please select only one option below:

- Yes, I would like to enroll in the PPP with the following terms for all future invoices: _____ % / 10 Days / Net 30 **
- I confirm that I am an authorized representative of this company and that if The City of New Haven pays any Invoiced Debt owed to the aforementioned company under or in connection with any Contract prior to the date by which such payment would otherwise be required to be made under the terms of that Contract, The City of New Haven shall be entitled to deduct and retain from that Invoiced Debt, for its own benefit, an Priority Payment Discount which it will deduct and retain from that Invoiced Debt. These terms will apply to all invoices unpaid as of the date of signature as printed on this form. The discounts are dynamically calculated, with a target payment date of 10 days from the date of invoice acceptance. The final discount taken is proportionate to the number of days the payment is accelerated. A discount is taken ONLY if payment is made before 30 days from the date of invoice acceptance.
 - I understand and agree that once enrolled in New Haven's Priority Payment Program, payments will no longer be sent in the form of a paper check and mailed via the United States Postal Service, but rather will be paid electronically via direct deposit to our company's bank account.
 - I confirm that I am an authorized representative of this company and agree to these payment terms
- I'm interested in the PPP, but have questions and would like someone to call me at this number _____
- I'm already enrolled in the PPP
- No, I'm not interested in participating at this time

Jay Brotman Printed Name  Signature 1/4/21 Date

* *Please note: Payments made via direct deposit typically take 1-3 business days until funds are posted and available in your bank account
 ** The City of New Haven reserves the right to approve or reject any proposed PPP percentage rates
 Questions? Email us at onboarding@oxygen-finance.com or call us (866) 515-3860

VENDOR "BAN THE BOX" ORDINANCE COMPLIANCE AGREEMENT

Adopted 02/09

The City of New Haven is subject to Ordinance #1585 (2/17/2009) which prohibits unfair discrimination in City hiring policies against persons previously convicted and provides a mechanism to ensure that persons and businesses supplying goods and/or services to the City of New Haven have adopted and employ fair hiring policies and practices that are consistent with the City's goal of removing obstacles to the employment of persons with prior convictions.

Accordingly, during the performance of this contract, the Contractor agrees as follows:


(A) Vendors doing business with the City of New Haven shall adopt and employ conviction history policies, practices, and standards that are consistent with City standards further detailed in the attached ordinance. The Vendors' criminal history standards will be part of the criteria to be evaluated by the City as to whether to award a City contract. Further, the City will be able to evaluate a Vendor's execution of the criminal history standards as a part of the performance criteria of said City contract(s); the Awarding Authority, in consultation with the Office of Corporation Counsel and the Community Services Administration, shall consider any Vendor's deviation from these criminal history standards as grounds for rejection, rescission, revocation, or any other termination of the contract.

(B) Under exigent circumstances, an Awarding Authority, by its highest ranking member, in consultation with the Office of Corporation Counsel and the Community Services Administration, may grant a Vendor a waiver of the criminal history standards on a contract-by-contract basis. A written record of the waiver shall be kept on file by the Awarding Authority, the Community Services Administration and the Office of Corporation Counsel, and shall also be submitted to the City of New Haven Commission of Equal Opportunities. The written record shall include, but not be limited to: (a) a summary of the terms of the contract, (b) the details of the Vendor's failure or refusal to conform to the City's criminal history standards, and (c) a brief analysis of the exigency causing the grant of waiver. No waiver may be considered perfected unless the Awarding Authority fully complies with the provisions of this sub-section.

(C) A Vendor may contact the Community Services Administration to report any problems, concerns or suggestions regarding the implementation, compliance and impact of these sections, and the Community Services Administration shall log every comment received with a summary of the comment and shall keep on file any written comments. Subsequent to logging any comment the Community Services Administration shall refer all complaints to the Office of the Corporation Counsel and shall notify the relevant Awarding Authority of the complaint and any further investigation that the Community Services Administration in consultation with the Office of Corporation Counsel deems necessary or appropriate.

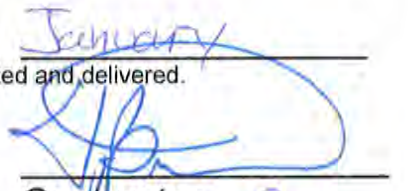
In Witness WHEREOF, on the 4th Day of January 2021,
the contract has caused two counterparts of this Agreement to be executed and delivered.

Witness:



(signature)

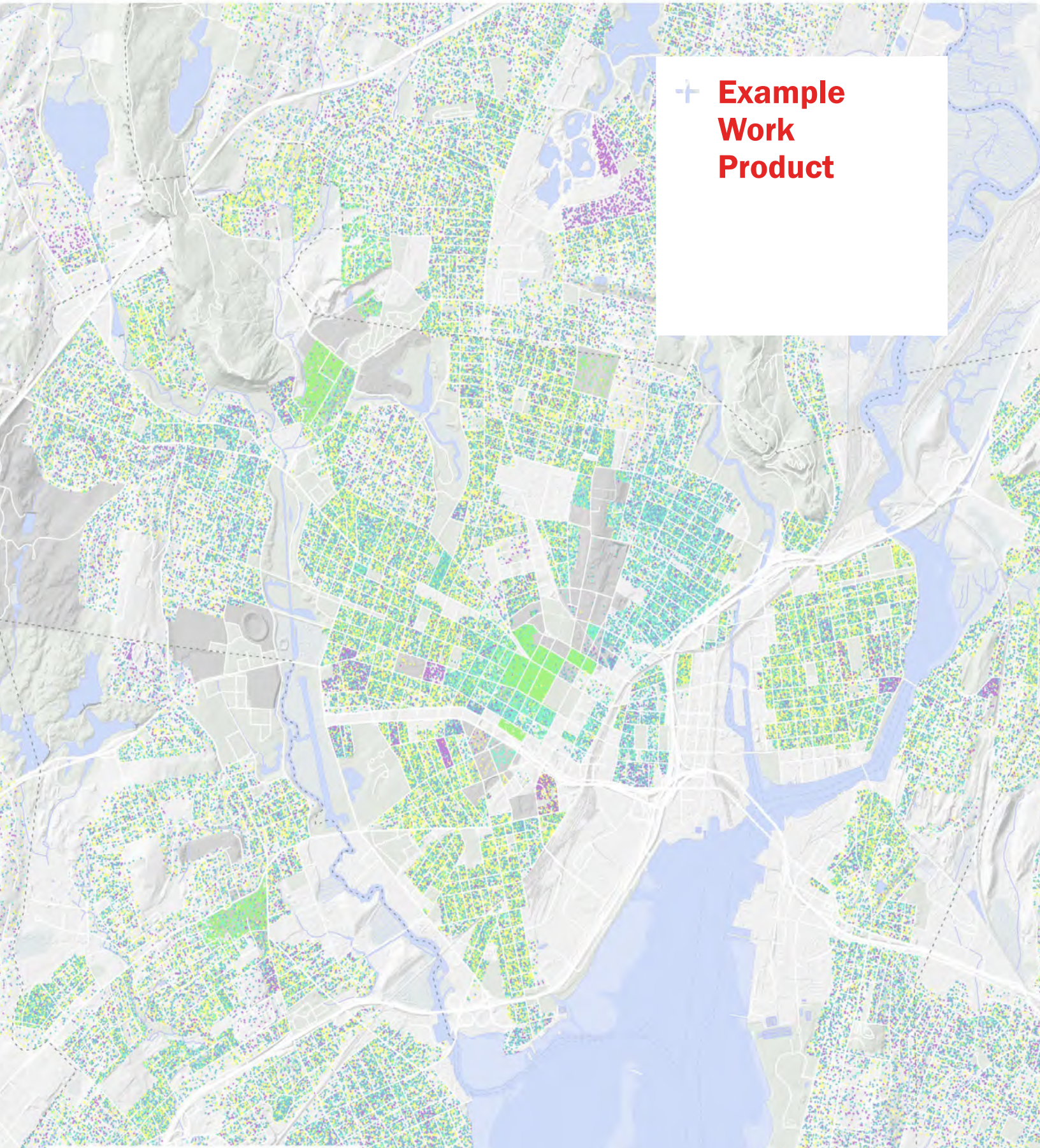
(signature)



Contractor

Managing Partner
Title

+ **Example
Work
Product**





Public School Facility Utilization & Redistricting Study

August 28, 2015



Prepared for Waterbury Public Schools

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EXECUTIVE SUMMARY

Milone and MacBroom, Inc. was engaged by the City of Waterbury and Waterbury Public Schools to prepare a Facility Utilization and Redistricting Plan focusing on the district's Pre-Kindergarten through 8th grade non-magnet schools. The purpose of this study is to understand recent growth in student enrollment over the past 3 years; project enrollment for the foreseeable future; inventory and define a capacity for the elementary and middle schools; and develop a plan that aligns demographics with school facility needs, space requirements, and educational vision for a neighborhood PKindergarten-8 (PK-8) system.

Over the last decade, the Waterbury Public Schools have undergone the closure of Barnard and Brooklyn elementary schools and the construction of Duggan, Reed, Gilmartin, and Carrington PK-8 schools. The initial movement towards the PK-8 neighborhood model has changed the landscape of Waterbury Public Schools. During this same time period, the nation experienced the Great Recession while in the midst of the Echo-Baby Bust. Despite these events, which resulted in shrinking enrollments statewide, Waterbury Public Schools experienced growth in enrollment.

PK-12 enrollments in Waterbury Public Schools have grown by more than 5% from 17,907 students a decade ago to 18,809 in the 2014-2015 school year. Since 2011-2012, elementary enrollment has increased by approximately 5%, resulting in increased pressure on the system's capacity, ultimately impacting the delivery of the PK-8 neighborhood. Rather than having compact and cohesive neighborhood schools and boundaries, there has been an ad hoc placement of students and coopting of space in order to accommodate students in any and every viable space in the district. Enrollment projections show a slowing of growth over the next decade; however, the enrollment level and overcrowding will still persist.

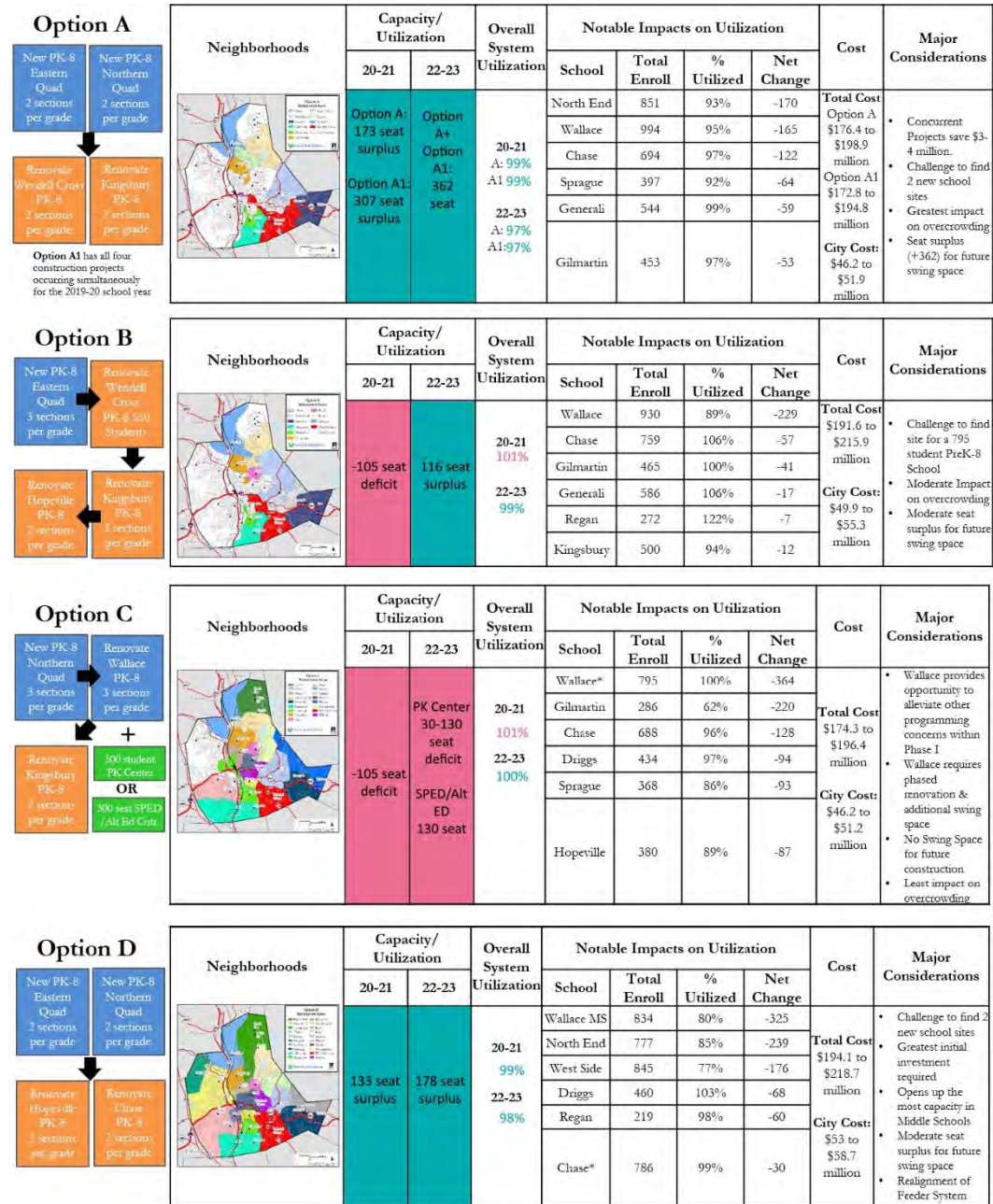
The SLAM Collaborative conducted an analysis of the capacity, utilization, and general condition of Waterbury's non-magnet, PK-5, PK-8, and 6-8 schools. The schools were evaluated for general conditions and utilization from facilities walkthroughs conducted in February and March of 2015. A facility questionnaire and follow-up discussions were held with administration to verify classroom usage, identify building deficiencies, and to explore potential opportunities.

The utilization analysis included benchmarking facilities to discern inequalities and/or inadequacies and provided a functional capacity for each facility. The utilization analysis found that of the 21 schools studied, 16 were operating above 100% capacity. In fact, the district's PK-5, PK-8, and 6-8, schools are currently operating at 109%, 103%, and 104% of capacity respectively. Based on the projected enrollment, the overcrowding will not self-mitigate. Projected utilization for 2022-2023 collectively has the district's PK-5, PK-8, and 6-8 schools operating at 106% or a deficit of nearly 700 seats.

Working closely with Waterbury's Board of Education, Waterbury Public School Administration, city officials, and program managers from O&G Industries, alternatives for the future were developed that aim to mitigate overcrowding and establish cohesive neighborhood-based PK-8 schools. These alternatives included various schemes for building new PK-8 schools in both eastern and northern quadrants of the city as well as converting various existing school buildings into PK-8 schools. The alternatives analyses are intended to assist the Board of Education and community in determining the best path for continuing the PK-8 neighborhood vision for the district.

A summary of alternatives prepared is provided below:

Figure 01 Summary of Options



Source: Prepared by MMI. 08/2015.

INTRODUCTION

The study intended to assess current facility utilization and projected enrollments and make recommendations regarding changes in districts and/or the city's school facility portfolio.

Section 1 of this report provides detailed analyses of the factors affecting school enrollments: trends in demographics, housing, the economy, and enrollments in public and private schools. Enrollment projections for the district, disaggregated by grade, are provided in Section 2 with a description of the projection methodology used. Section 3 details the facility utilization analysis and methodology, while the detailed inventory of facilities is provided in Appendix A. Section 4 discusses the issues and concerns identified through the enrollment and facility utilization analysis and those to be addressed through recommendations for alternatives. Section 5 includes analyses of the various alternatives explored. Finally, Section 6 provides recommendations for the city and Board of Education for the next decade.

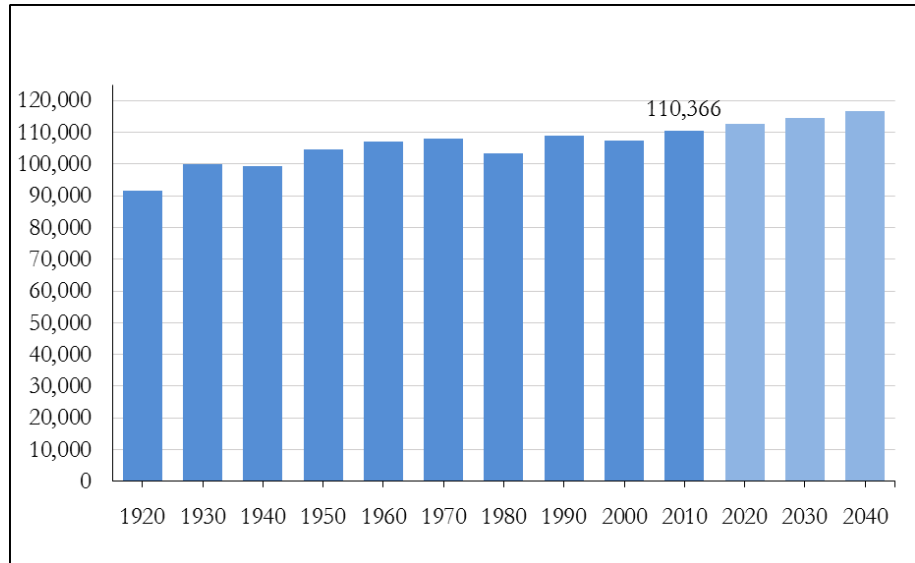
SECTION 1 – FACTORS AFFECTING ENROLLMENTS

DEMOGRAPHICS

TOTAL POPULATION

The City of Waterbury reached its highest population ever in 2010, 110,366 people, according to the U.S. Census (see the chart below). From 2000 to 2010, the city’s population increased 2.9%, whereas the state’s population increased 5.0% over the same time period. Waterbury’s growth through the 2000s was similar to that of Bridgeport and Hartford, which saw 3.4% and 2.6% increases in population respectively. The Connecticut Department of Transportation (CT DOT) regularly prepares population projections based on employment, housing, and transportation factors. CT DOT’s population projections for Waterbury show steady, moderate growth over the next 25 years.

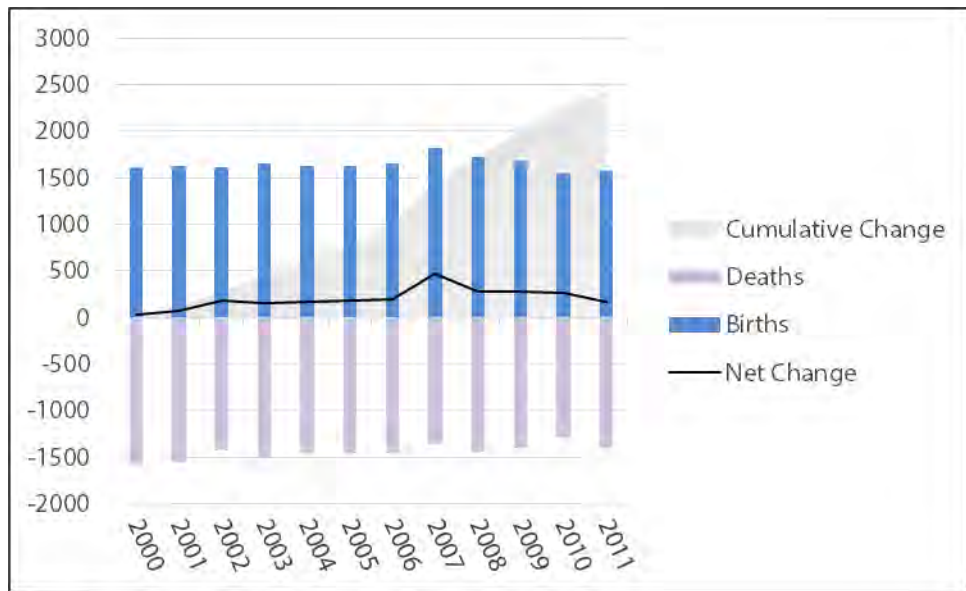
Figure 02 Waterbury Historic and Projected Total Population, 1920-2040



Sources: US Census and CT DOT.

The majority of population growth in Waterbury between 2000 and 2010 resulted from natural growth, i.e. more births than deaths. The Connecticut Department of Public Health (CT DPH) birth and death statistics show that between 2000 and 2010 Waterbury had a net growth of approximately 200 people per year, cumulatively accounting for a growth of 2,264 people over the 10-year period. Compared with the overall population growth numbers from the US Census, this would suggest that 73% of growth over the 10-year period came from natural growth, and 27% (831) from in-migration.

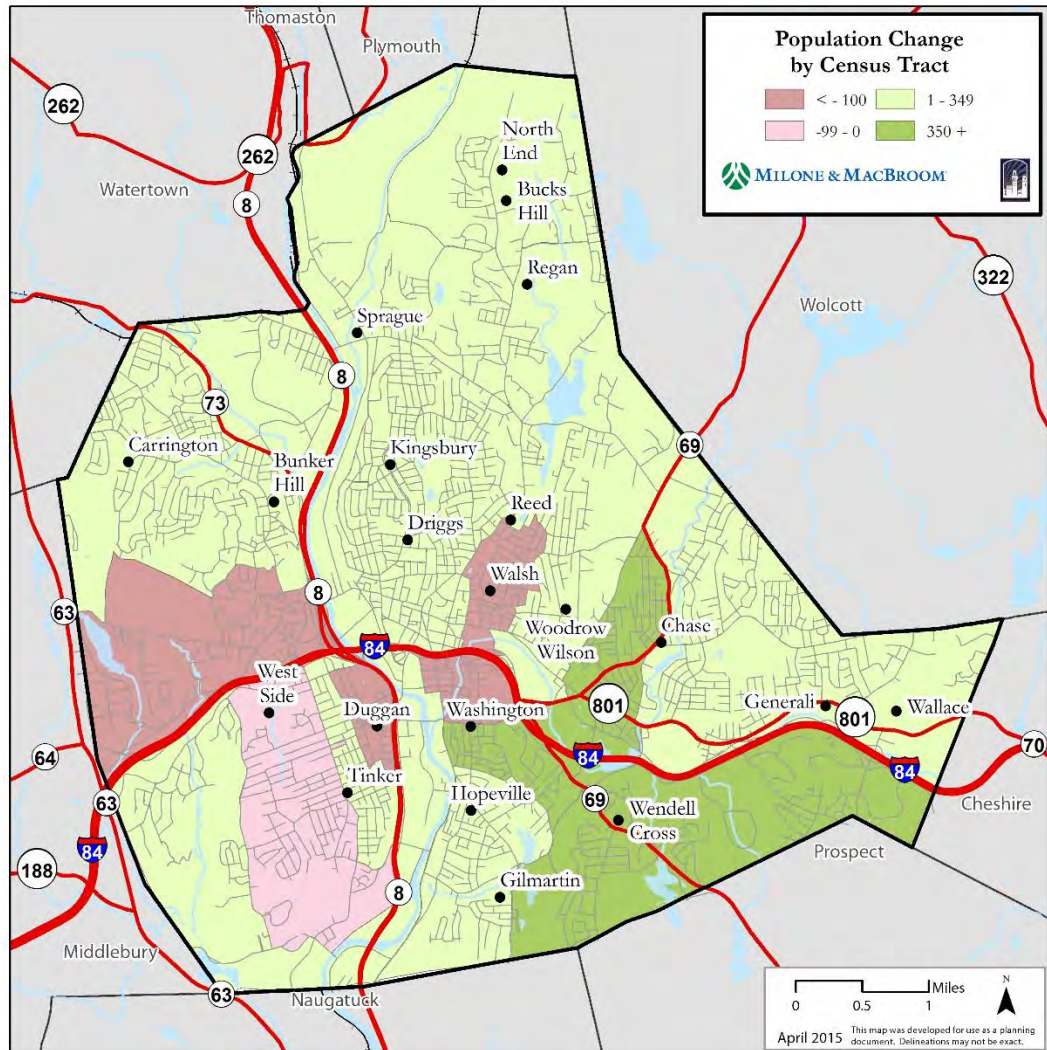
Figure 03 Waterbury Natural Population Change, 2000-2011



Source: CT DPH.

The City of Waterbury as a whole gained population; however, growth was not evenly distributed geographically or in demographic composition. Census Block Group data shows that certain neighborhoods gained population, while others lost population between 2000 and 2010. These neighborhood-level changes, whether growing or declining in population, affect neighborhood school districts.

Figure 04 Population Change, 2000-2010



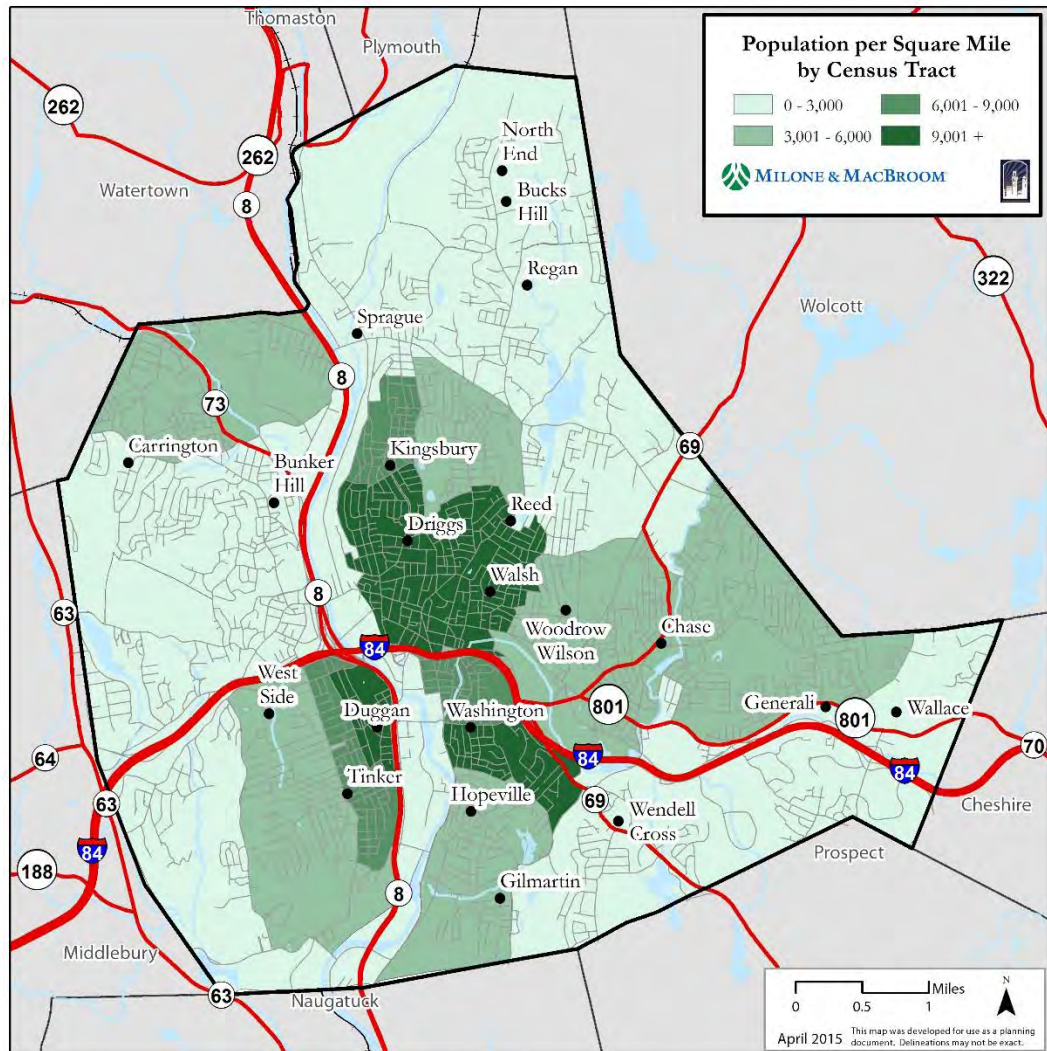
Source: U.S. Census.

POPULATION DENSITY

Population density in Waterbury varies greatly by neighborhoods. Generally, housing in Waterbury is densest downtown, lessening in a radiating pattern away from the center. However, the entire East End has higher population density than the North and West Ends. These densities are shown at the Census Block Group level in the accompanying map. The densest block groups in Waterbury correspond roughly to the neighborhoods of Hillside, Crownbrook, and Walnut-Orange-Walsh (W.O.W).

These neighborhoods have between 15 and 40 residents per acre. In comparison, places like Waterville, East Mountain, and Bucks Hill, which are residential areas, have only between one and five residents per acre. Additionally, certain areas that have large park systems or industrial complexes, such as along the Naugatuck River, have very low population densities.

Figure 05 Population Density, 2000-2010



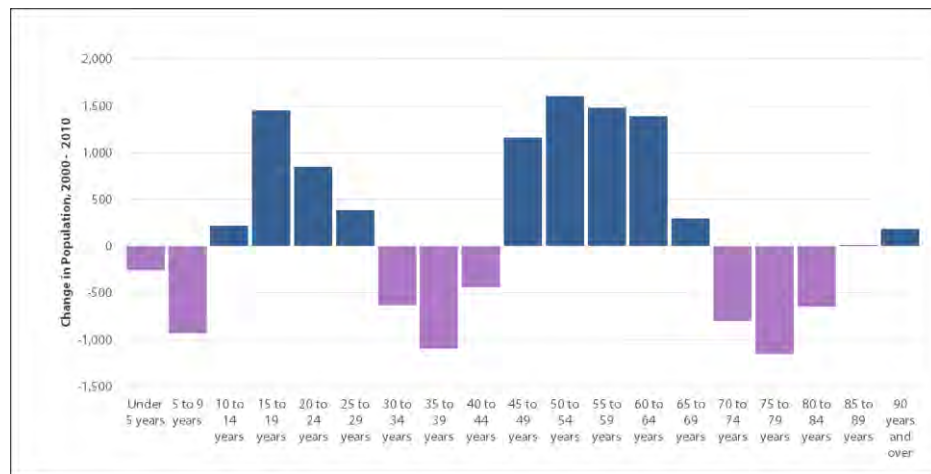
Source: U.S. Census.

AGE COMPOSITION

The distribution of the population across age groups changed significantly from 2000 to 2010 while the overall population increased slightly. In that time period, Waterbury gained population in those 10 to 29 years of age and those 45 to 69 years of age while losing population of cohorts less than 9 years of age and between the ages of 30 and 44. The loss of those in the age range of 30 to 44 is notable because those age groups represent the most likely to have young families and therefore may have implications for future school enrollments.

Compared to the state's other largest cities, Waterbury's median age is rising slower than others. New Britain's median age dropped; however, all other cities' median ages grew by 0.5 years or more in the period between 2000 and 2010. The state as a whole increased its median age by just over 1 year.

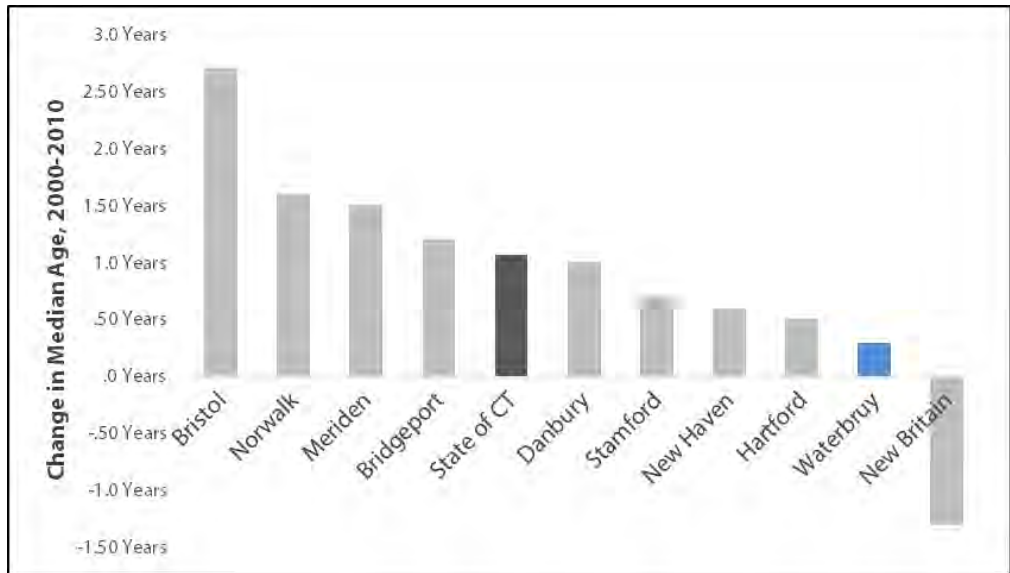
Figure 06 Waterbury Population Change in Age Structure, 2000-2011



Source: US Census.

Waterbury residents are younger than other residents of the state in general. In 2010 the median age in Waterbury was 35.2, while the median age for the entire State of Connecticut was 40.0. Additionally, Waterbury has a greater percentage of its population in each of the age cohorts under 40 and a lower percentage of its population in age cohorts over 40 than the state as a whole.

Figure 07 Change in Median Age, 2000-2010

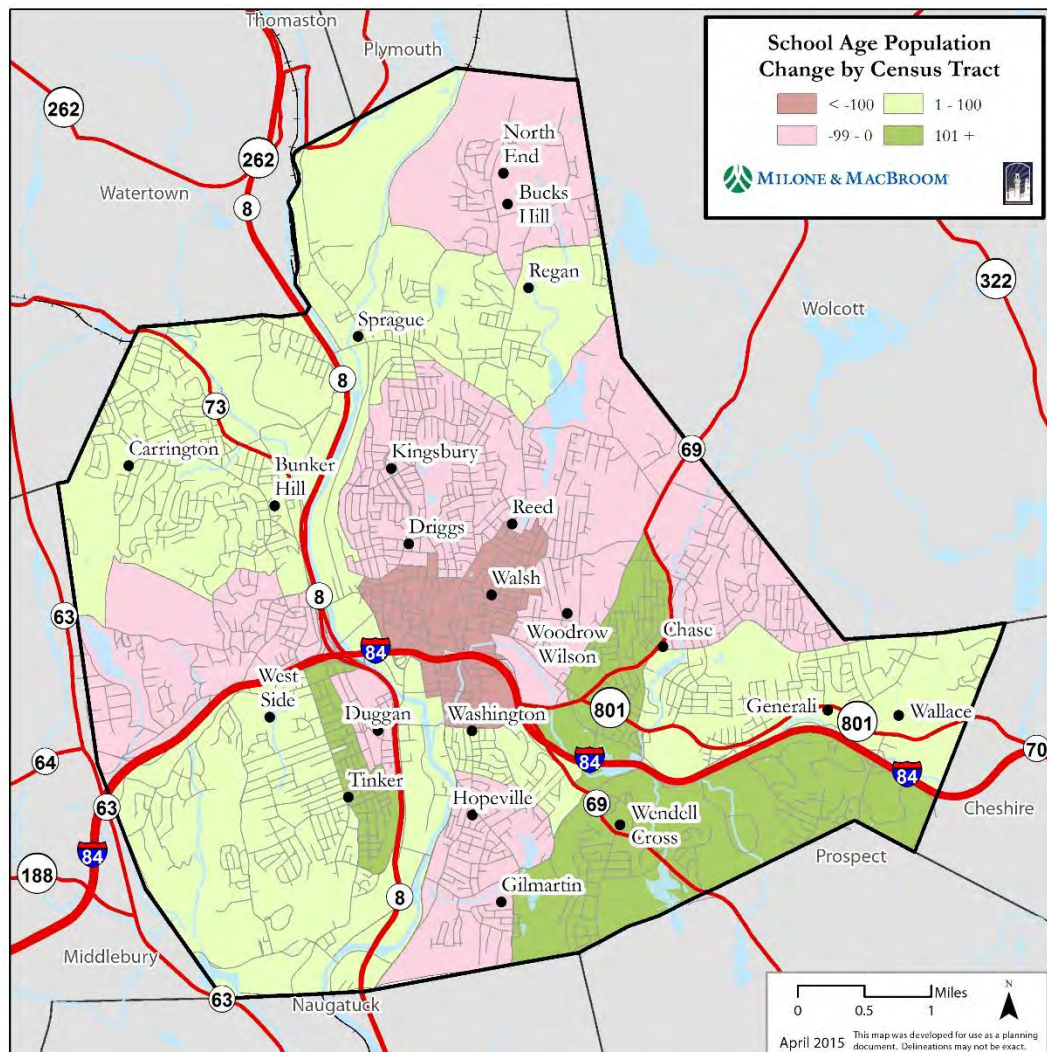


Source: U.S. Census.

SCHOOL AGE POPULATION

While the total population of the city increased, the school-age population as enumerated by the U.S. Census remained flat. From 2000 to 2010, population ages five to 17 increased only 0.3% to reach a total of 20,345. This is the total number of residents in those age groups, regardless of the school attended. As is shown in the map below, some neighborhoods experienced a loss in student-age population, particularly in the core of the city, while other areas experienced an increase in these age groups.

Figure 08 School Age Population Change, 2000-2010



Source: U.S. Census.

DIVERSITY

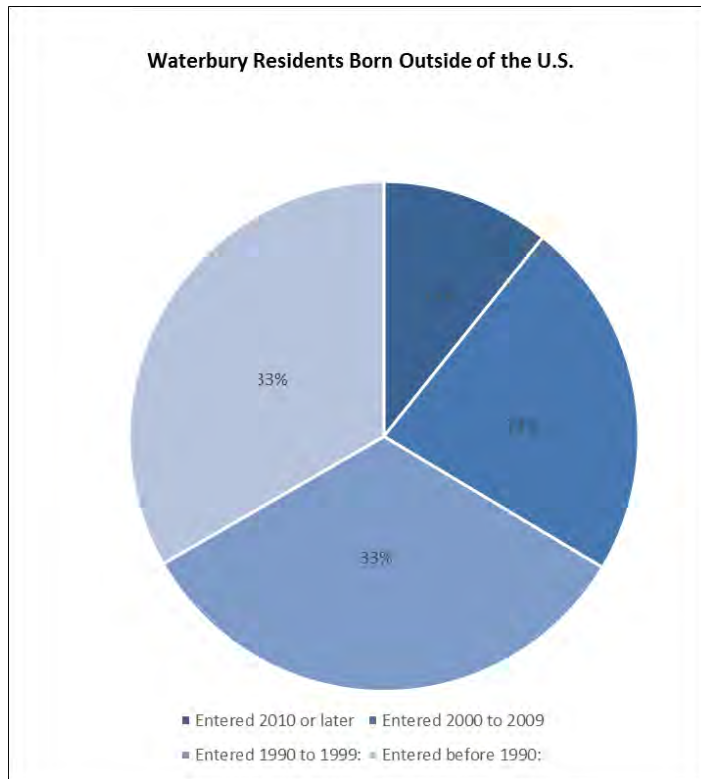
Waterbury has a long history of welcoming immigrant populations that continues today. According to the 2013 American Community Survey, approximately 25% of the city's population is foreign-born. Of those foreign-born residents, approximately a third have entered the U.S. since 2000 with an estimated 10% having entered since 2010.

About 37% of the school-age population speaks a language other than English according to the U.S. Census. Among those youth who speak another language, 10% reported speaking English "less than very well." Waterbury's immigrant population has unique needs that affect educational programming in the city's schools.

Currently, the overall composition of minority enrollment in Waterbury Public Schools is about 80%. In 2005, that figure was about 70%.

Further analysis regarding language needs among Waterbury students is included in the enrollment trends discussion in this Section.

Figure 09 Waterbury Residents Born Outside of the U.S., 2000-2011

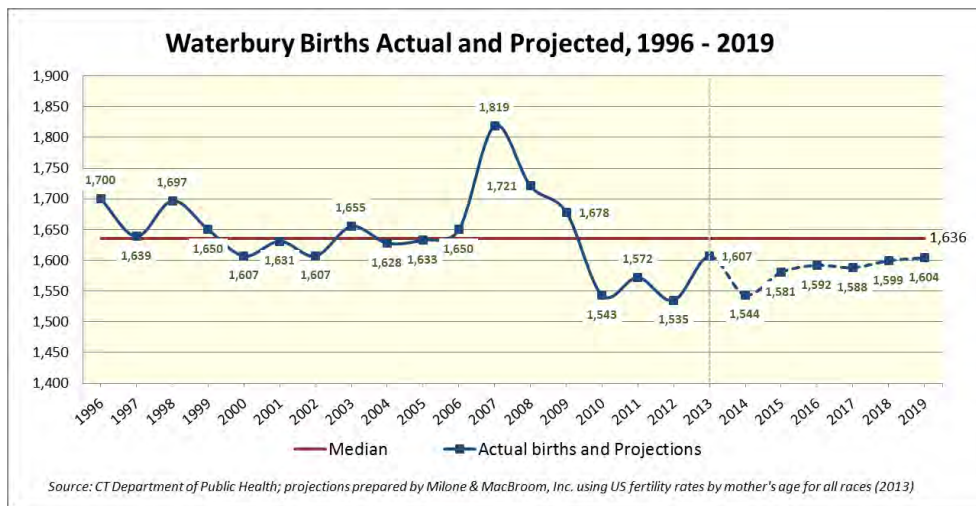


Source: American Community Survey 2013

BIRTHS

Annual births to Waterbury resident mothers have experienced some unusual trends over the last decade that have had direct impacts on school enrollments, as will be discussed later. While births remained at a very steady average of 1,630 per year from 2000 through 2006, they experienced an anomalously high spike in 2007 to 1,819 births in one year. This represents a jump of over 10% from the year before, when births had varied on average only 1.5% from year to year in each of the previous 7 years. In addition, births remained unusually high in 2008 with 1,721 and again in 2009 with 1,678 births. As with most communities in the state and region, births declined with the Great Recession. In 2010, annual births experienced an 8% decrease from the previous year and fell significantly below the historic median for the first time in 20 years. Annual births have not yet recovered to historic median levels, despite a rise in 2013 that brought births back to levels seen in the early 2000s at 1,607. For the purposes of preparing enrollment projections out 8 years, birth projections were prepared using several methodologies including multiple regression and cohort-fertility rates. The projections shown in the chart below were derived from U.S. age-specific fertility rates. How these birth projections were used in preparing enrollment projections is addressed in Section 2.

Figure 10 Waterbury Birth Actual and Projected, 1996 - 2019



Resident females of child-bearing age (between the ages of 15 and 44) increased 2.2 percent from 2000 to 2010, slightly less than overall population growth in the city. Nevertheless, the increase in the number of females, particularly in their 20s, supports the projected slow increase in annual births.

Live birth data to Waterbury resident mothers was obtained from the CT DPH for the purposes of this study through the Human Investigations Committee (Milone & MacBroom, Inc. is responsible for all analyses of that data). This data was geocoded to identify patterns in births by neighborhood. Comparing average annual births by neighborhood from around the recent peak of births (2005-2009) to the current trough in births (2010-2014) helped to identify whether any particular neighborhoods experienced unusual growth or decline in births, which in turn may affect incoming classes. The map and table below show that the decline in births was widespread across nearly all districts except Bucks Hill and Regan.

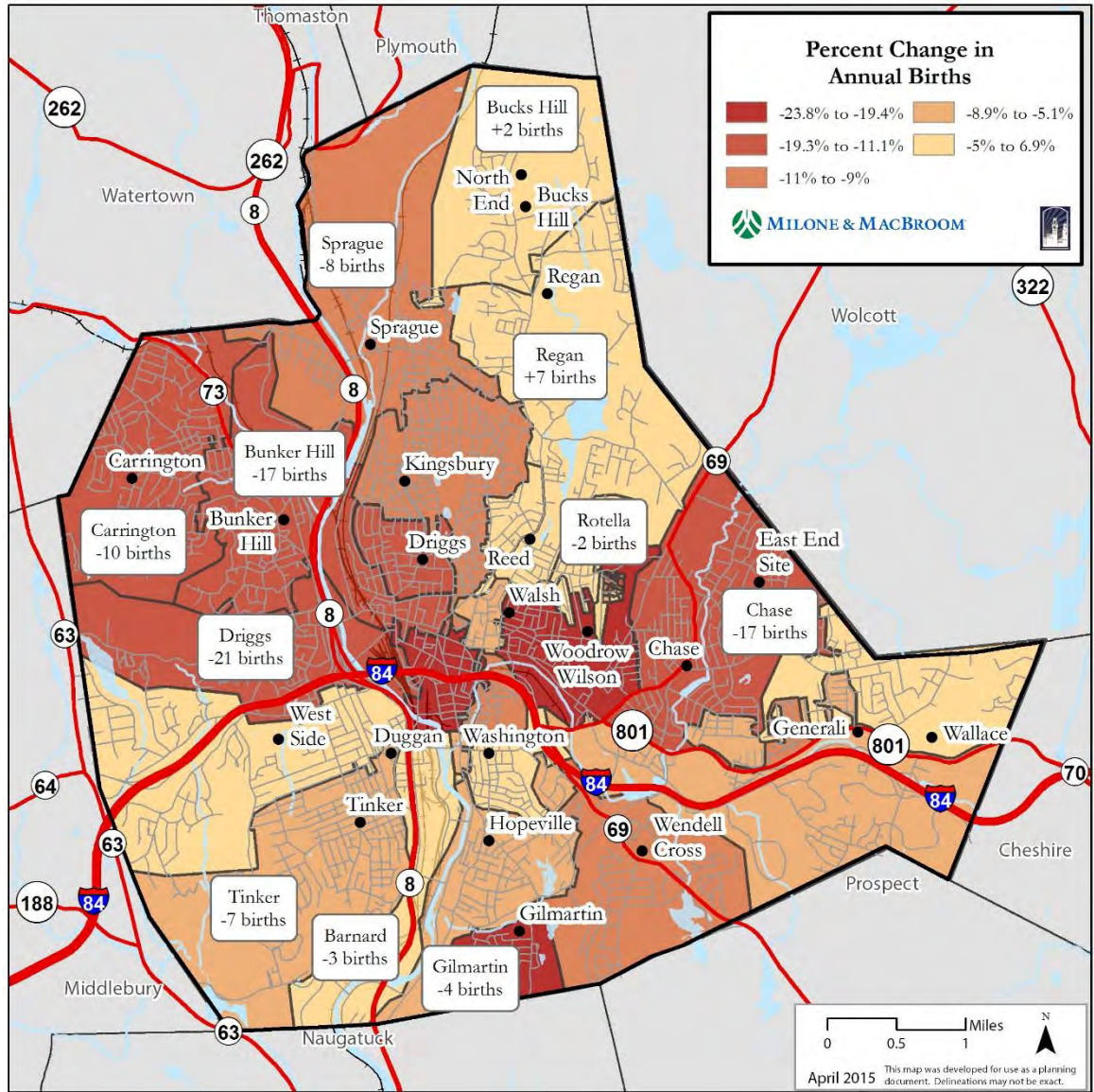
Table 01 Change in Births by Districts (Five Year Windows), 2005-2014

District	Average Births (2005 - 2009)	Average Births (2010 - 2014)	Change in Averages	Percent Change
Barnard	94	91	-3	-3.2%
Bucks Hill	92	94	2	1.9%
Bunker Hill	102	85	-17	-16.4%
Carrington	91	81	-10	-11.1%
Chase	147	130	-17	-11.4%
Driggs	164	143	-21	-13.0%
Generali	109	102	-7	-6.0%
Gilmartin	19	15	-4	-19.4%
Hopeville	68	63	-5	-7.0%
Kingsbury	138	125	-13	-9.5%
Maloney	21	16	-5	-23.8%
Regan	98	105	7	6.9%
Rotella	93	91	-2	-2.6%
Sprague	76	69	-7	-9.9%
Tinker	129	122	-7	-5.1%
Walsh	122	94	-28	-22.8%
Washington	58	56	-2	-2.7%
Wendell Cross	64	58	-6	-9.0%

Note: Certain data used in this study were obtained from DPH. MMI assumes full responsibility for analyses and interpretation of the data.

Source: CT DPH. This study was approved by the DPH HIC.

Figure 11 Percent Change in Annual Births, 2005-09 Average to 2010-14 Average



Note: This study was approved by the DPH HIC. Certain data used in this study were obtained from DPH. MMI assumes full responsibility for analyses and interpretation of the data.

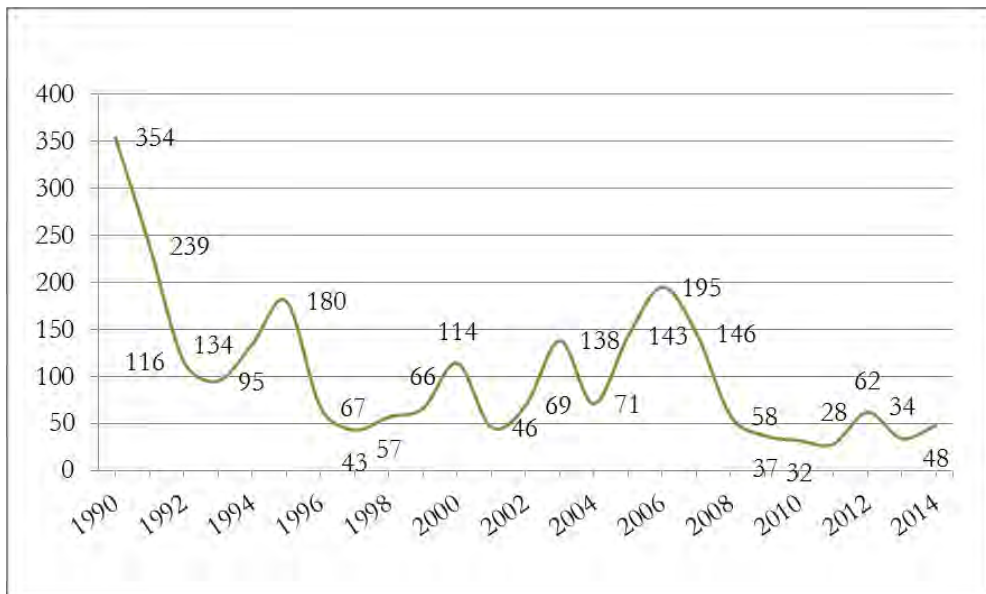
Source: CT DPH.

HOUSING

HOUSING UNIT CHANGE

A community’s housing stock and residential development affects demographics and school enrollments. Housing units increased 2.5% from 2000 to 2010, reaching 47,991 total units. The southern half of the community experienced more housing growth during the decade than the core and northern area, as shown in the accompanying map on housing unit change by census tract. Indeed, census tracts in the center of the city lost housing units over the decade.

Figure 12 Waterbury Housing Permits



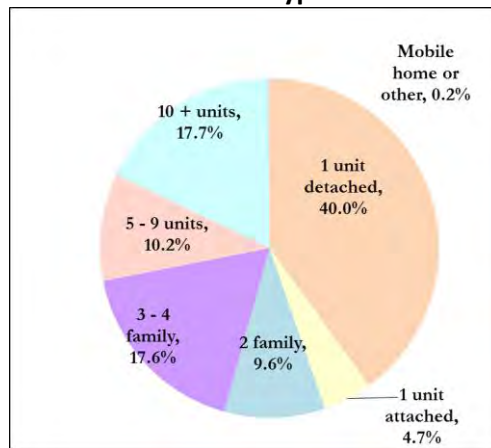
Source: CT DECD, 2014 preliminary data.

New construction housing permit activity corresponds to this growth in units during the 2000s, with nearly 200 permits issued in 2006 alone. The Great Recession clearly had an impact on new construction; new construction residential permitting plummeted to around 30 permits annually from 2009 to 2011 with a small uptick in the last 3 years. While permitting may still lag, reports from local realtors indicate that the housing market in Waterbury is beginning to show signs of recovery from the Great Recession.

HOUSING STOCK

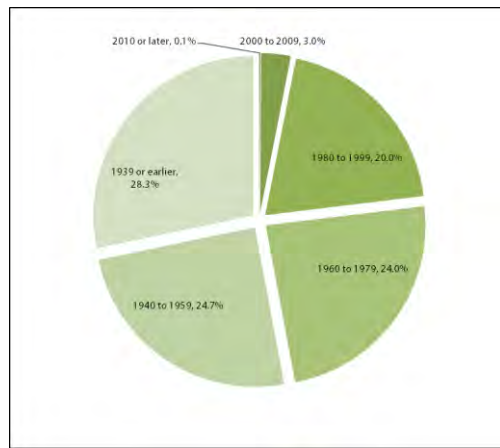
For an urban community, Waterbury’s housing stock consists of a significant amount of single-family housing units. According to the 2013 American Community Survey, 45% of Waterbury’s total housing units are single-family attached or detached compared to 36% in Bridgeport, 21% in Hartford, and 28% in New Haven. In fact, more than 54% of Waterbury’s housing stock consists of single- and two-family homes, which tend to be more family oriented. Further supporting the family-oriented nature of the housing stock is the fact that 82% of Waterbury’s occupied housing units consist of two or more bedrooms. The following chart depicts the composition of Waterbury’s occupied housing stock.

Figure 13 Waterbury Housing Types



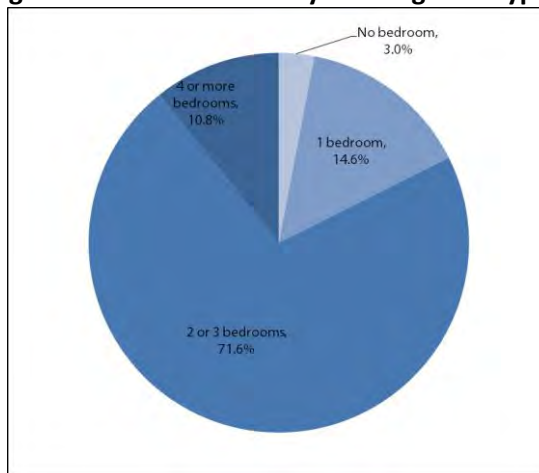
Source: American Community Survey 2013.

Figure 14 Waterbury Housing Age



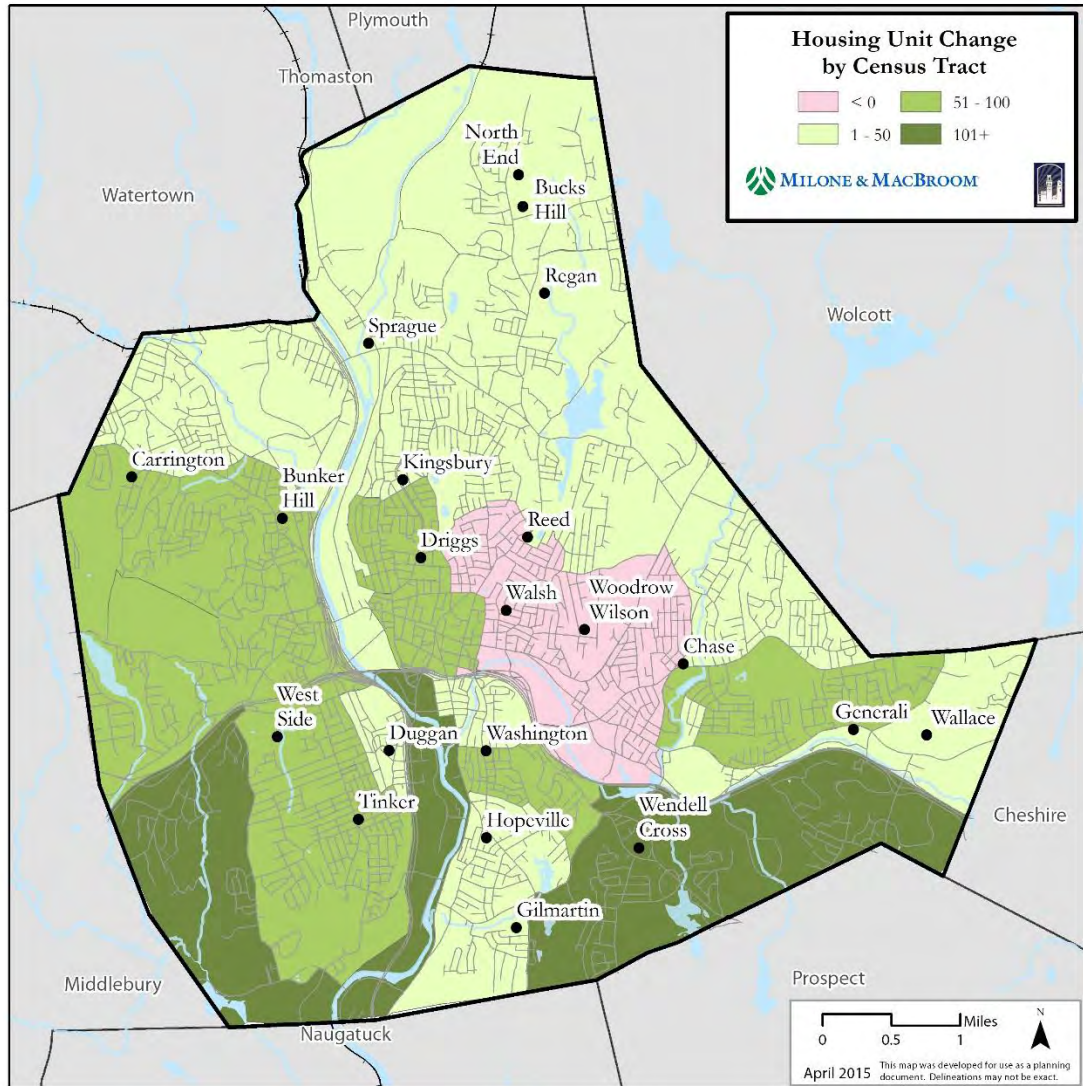
Source: American Community Survey 2013.

Figure 15 Waterbury Housing Unit Types



Source: American Community Survey 2013.

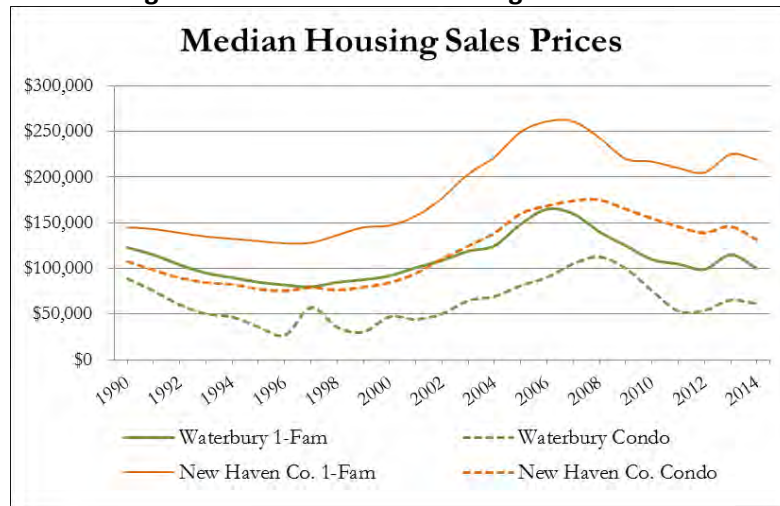
Figure 16 Housing Unit Change by Census Tract, 2000-2010



Source: U.S. Census.

Family-style housing units are not only available but also affordable in Waterbury. Since the Great Recession began in 2008, median sales prices for single-family homes in Waterbury are consistently about half of the median sales price for single-family homes in New Haven County on the whole. In addition to generally more affordable housing sales prices and rents, Waterbury hosts a significant number of public housing units and Section 8 vouchers.

Figure 17 Median Housing Sales Prices



Source: The Warren Group, 2015.

Table 02 Section 8 Project-Based Units

City	Section 8 project-based Units
Hartford	2,916
Waterbury	2,540
New Haven	2,224
Stamford	1,123
Bridgeport	1,042
Norwalk	524

Source: The Warren Group, 2015.

Figure 18 Waterbury Annual Housing Sales, 1987-2015



Note: * 2015 Data is an estimate one, according to the sales numbers from previous years.
Source: The Warren Group.

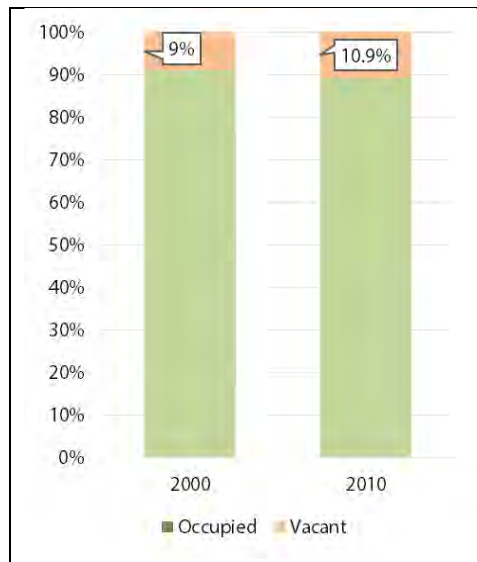
This drop in median housing sale prices coincided with a strong decline in the overall number of residential sales in Waterbury. The number of overall residential sales grew by 40% between 2003 and 2004 but has declined by an average 12% since 2006. Between 2005 and 2008 the total number of sales per year fell by over 50%. This depressed market is certainly working to keep prices low; as prices have fallen in neighboring suburban communities, their housing stock has become more affordable and attractive. The number of sales of condos had a less pronounced decline, suggesting that those units at the lower end of the market have become more desirable overall.

VACANCY RATE AND RENTAL STOCK

Waterbury had a relatively high 10.9% residential vacancy rate in 2010 compared to the state (an increase of 1.9% from 2000). For comparison, Connecticut had an overall vacancy rate of 7.9% in 2010, and New Haven, often considered an extremely tight real estate market, had a 7.6% vacancy rate in 2010. This rate includes properties that are for sale, for rent, for seasonal use, or otherwise not occupied.

There was a 1% increase in the number of rental units between 2000 and 2010, increasing the number of rental units by 349. This had virtually no effect on the overall percentage of rental versus owner-occupied housing units, keeping it consistent at 47% owner occupied and 53% renter occupied.

Figure 19 Waterbury Housing Vacancy Rate in 2000 and 2010



Source: U.S. Census.

Figure 20 Waterbury Housing Tenure in 2000 and 2010



Source: U.S. Census.

HOUSEHOLDS

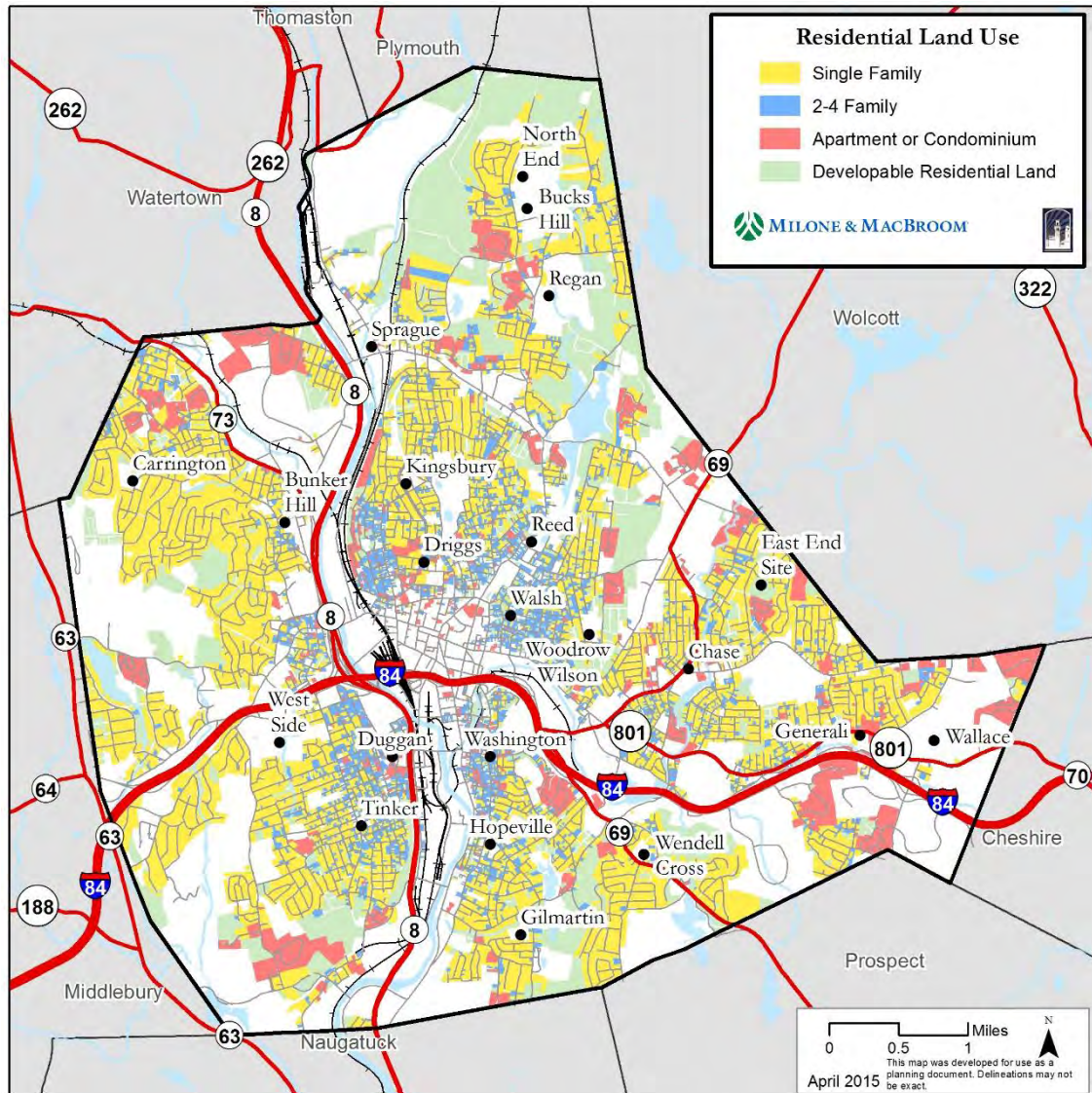
Due in part to the unique nature of the housing stock, Waterbury’s households are primarily made up of families. Families are defined as a householder living with at least one other person who is related by birth, marriage, or adoption. Almost 60% of all of the approximate 40,000 households in the city are made up of families, and 64% of those households consist of families of three or more persons. Non-family households primarily consist of single people living alone. Based on the housing, householder, and demographic data examined, Waterbury is a family-oriented community.

Table 03 Waterbury Households in 2013

Total	39,856
Family households	23,330
2-person	8,349
3-person	7,501
4-person	2,976
5-person	2,717
6-person	1,269
7+ person	518
Nonfamily households	16,526
1-person	13,804
2-person	2,400
3-person	187
4-person	135
5+ person	0

Source: American Community Survey, 2013.

Figure 21 Waterbury Residential Land Use Map, 2015



Source: Waterbury Assessor.

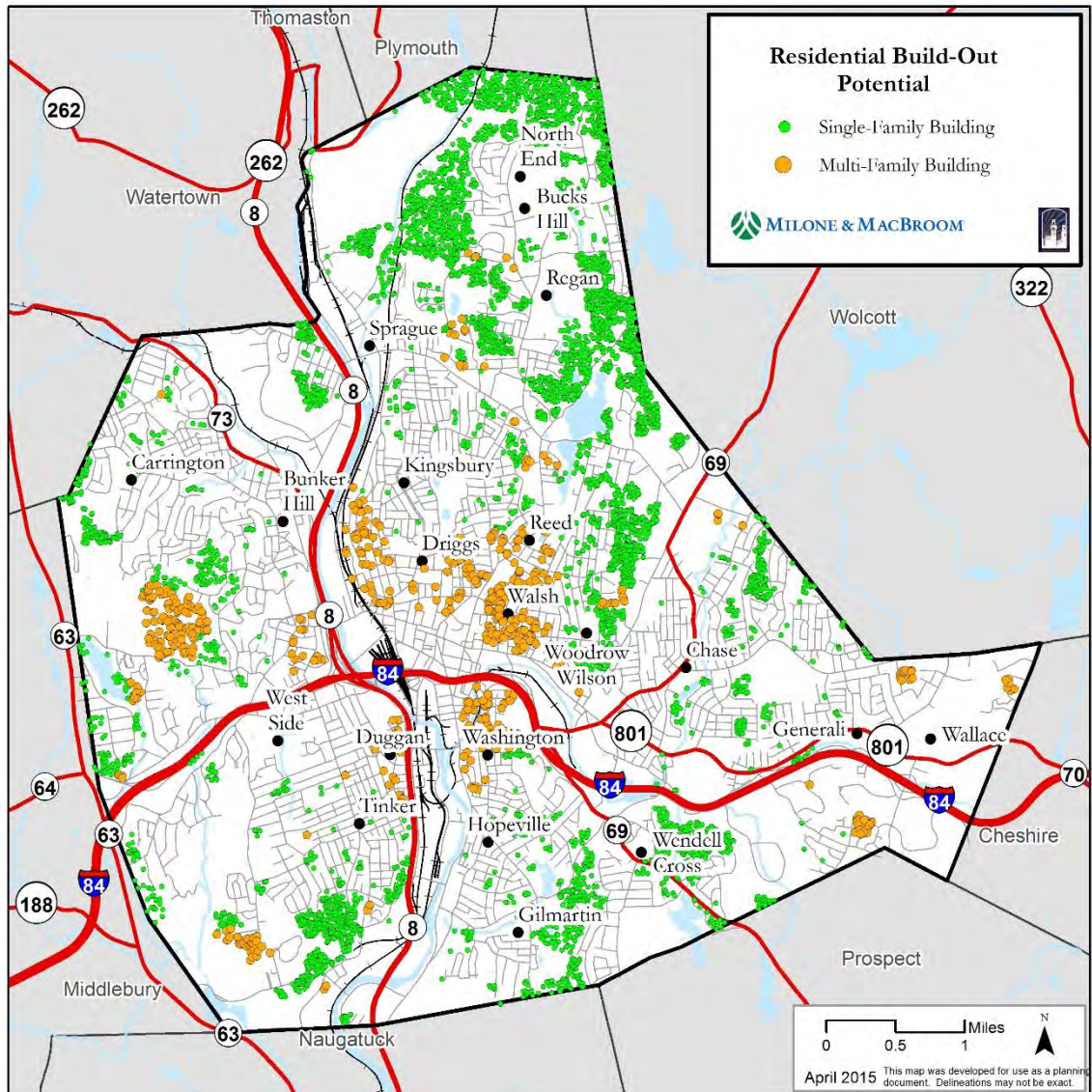
LAND USE AND BUILD-OUT ANALYSIS

Clustering of different housing types can be indicative of neighborhood demographic tendencies. For example, clusters of multifamily rental developments tend to have much more transient populations than detached single-family ownership neighborhoods. Therefore, residential land use in the city was examined to identify patterns and unique characteristics of existing school districts. The preceding map identifies properties currently in residential use by type as well as residentially zoned, vacant properties. The map clearly shows the city's stock of two to four family homes (shown in blue) is concentrated in the core of the city, while multifamily apartments and condominium developments (shown in red) are scattered throughout. In addition, remaining residentially zoned vacant land is concentrated in the northern tier of the city.

The residential land use analysis was also used to prepare a build-out analysis. This is an academic exercise to determine the number of additional housing units that can be built in a community under current zoning regulations and physical constraints. Vacant residentially zoned lands were classified as either "infill" or "subdivision" depending on their character and location. Infill lots are located in existing neighborhoods and resulted from previous subdivisions. We assumed that each infill parcel could accommodate one residential building and could not be further subdivided. Physical constraints such as floodplains, wetlands, and steep slopes, as well as 20% of parcel area for infrastructure in subdivision parcels were factored out of the calculation of permissible density. The remaining land area was used to calculate the maximum allowable density of units under current zoning. Two commercial zoning districts (General Commercial and Commercial Office) also allow residential uses and were included in the buildout analysis. It was assumed that 25% of developable land in those zones was used for residential development.

The residential build-out analysis resulted in the potential for an additional 9,830 housing units in the city under current zoning. Of those additional potential units, about 60% were single-family dwellings. This number of units, under today's average household size and current age composition of the community, would yield nearly 25,000 more residents, almost 4,900 of which would be school-age children. Full build-out is not expected to be reached; however, it is useful to understand where the greatest potential for additional housing unit growth lies when projecting facilities utilization out several years and when considering developing new school attendance zones.

Figure 22 Residential Build-Out Potential Map, 2015

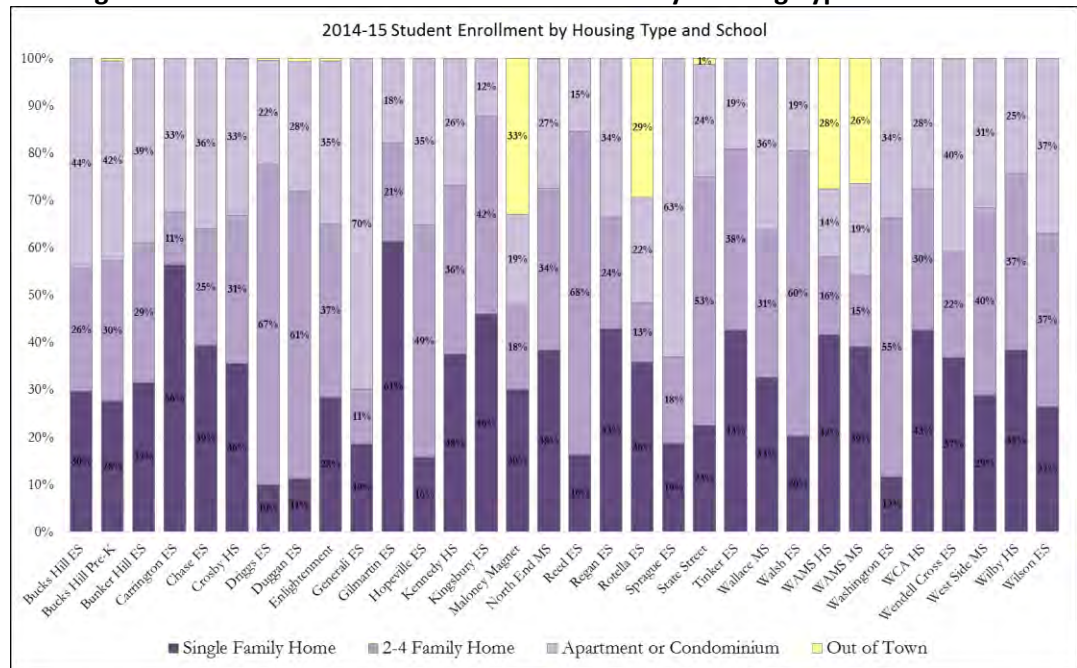


Source: Prepared by MMI. 04/2015.

HOUSING TYPES AND STUDENT GENERATION

To further understand neighborhood dynamics at the school attendance zone level, student enrollments were tied to housing type according to the resident address given and Assessor’s records. This analysis by school district for all schools is shown below. As is apparent, there are vast differences among elementary schools in the composition of the housing stock generating students. Districts like Carrington and Gilmartin predominantly consist of students living in single-family homes, while districts like Generali and Sprague are largely fed by apartment and/or condo housing.

Figure 23 2014-2015 Student Enrollment by Housing Type and School



Source: Waterbury Assessor and Waterbury Public Schools, prepared by MMI. 08/2015.

HOUSING SALES AND STUDENT GENERATION

Enrollment data was also compared to housing sales data to ascertain trends in the generation of new students to Waterbury Public Schools from housing sales. Four years of January to September sales data, as reported by the Warren Group, was geocoded and matched with any new students (those whose student i.d. numbers were not reported in the previous school year) residing at the same address in the subsequent school year. This ensures that families moving up or relocating within Waterbury are not included in the analysis, as their children were presumably previously enrolled. The analysis concluded that housing sales over the last 4 years have generated relatively few students. Only 308 new students were matched to housing sales from 2000 to 2010. Overall, for each housing sale in the city, 0.1 new students were added to the school system. Certain neighborhoods had higher multipliers (see the table below), but in the current residential market, the influence of housing sales on enrollment is insignificant overall.

Table 04 Student Enrollment Generated by 2010-2014 Housing Sales

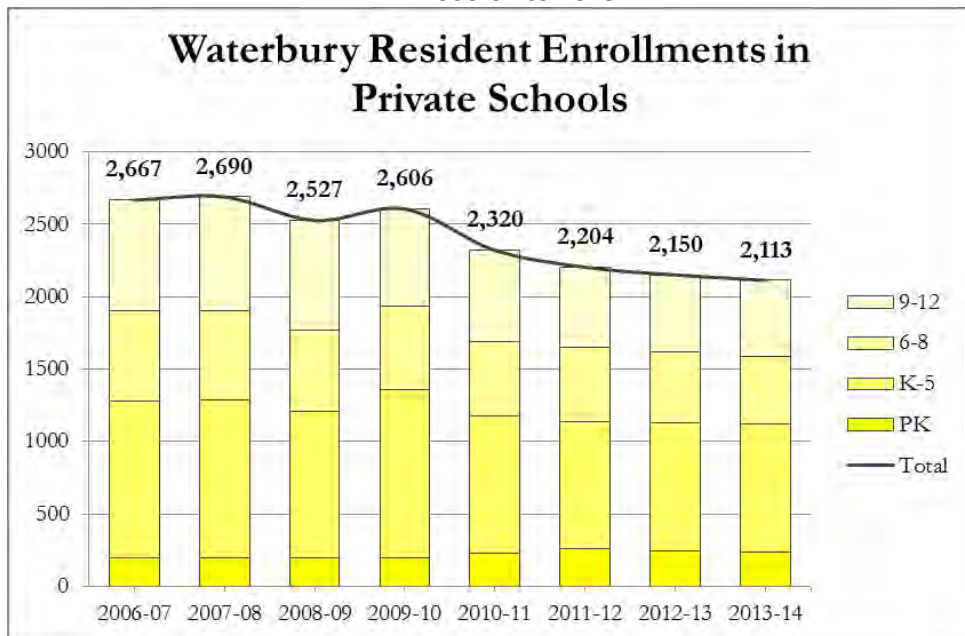
Neighborhood	Total Home Sales	Home Sales Generating New Students	Average New Students Per Home Sale
Hillside	34	14	0.50
Waterville	59	12	0.20
Boulevard	139	25	0.18
Fairmount	32	6	0.16
Mill Plain	121	17	0.15
Total	3,156	308	0.10

Source: Prepared by MMI. 08/2015.

ENROLLMENT TRENDS

It is important to consider enrollment trends in all types of primary and secondary school offerings when preparing enrollment projections, particularly in a city such as Waterbury, with a significant history of parochial school enrollment. Waterbury resident private and parochial school enrollments declined more than 20% from 2007-2008 to 2013-2014, according to data from the CT State Department of Education. The vast majority of these students attended a private school within the city. Private and parochial school enrollments decreased at all grade levels, except PK, during this timeframe.

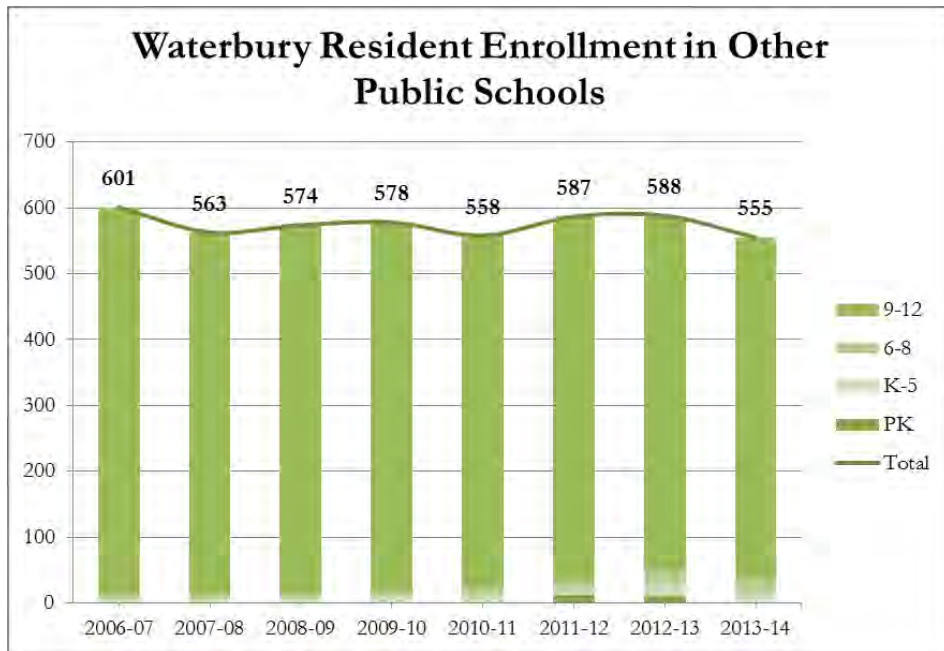
Figure 24 Waterbury Resident Enrollments in Private Schools, 2006-07 to 2013-14



Source: CSDE.

Other public school enrollments are Waterbury residents enrolled in technical, charter, and/or magnet schools operated by other public school districts. The vast majority of Waterbury resident students enrolled in other public schools are technical high school students. Enrollments in other public schools have remained quite stable over the last 8 years at about 575 total PK-12 students (see the chart below).

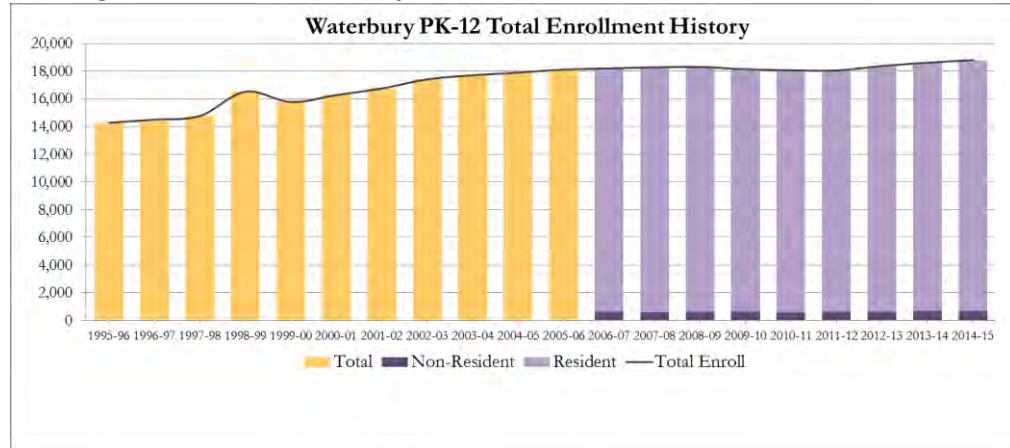
Figure 25 Waterbury Resident Enrollments in Other Public Schools, 2006-07 to 2013-14



Source: CSDE.

Finally, districtwide, grade-level, and school-specific trends for Waterbury Public School enrollments were analyzed. Total enrollment in the district was at about 14,500 in the mid-1990s and steadily increased for the next decade except for an unusual jump and dip in 1998-1999 and 1999-2000. Part of the increase in the early 2000s resulted from the introduction of magnet schools who take in non-resident students (while these students are accounted for in the total enrollment shown in the chart below, non-residents could not be identified from data sets prior to 2006-2007). In the mid- to late-2000s enrollments appeared to have plateaued, settling around 18,300 in 2007-2008 and 2008-2009. Enrollments declined during the height of the Great Recession from 2009-2010 through 2011-2012; however, total enrollment has increased 4.1% since 2011-2012. As the chart below shows, growth has occurred in the resident student population as the non-resident magnet enrollment has remained relatively stable at around 650 students annually.

Figure 26 Waterbury PK-12 Total Enrollment, 1995-96 to 2014-15

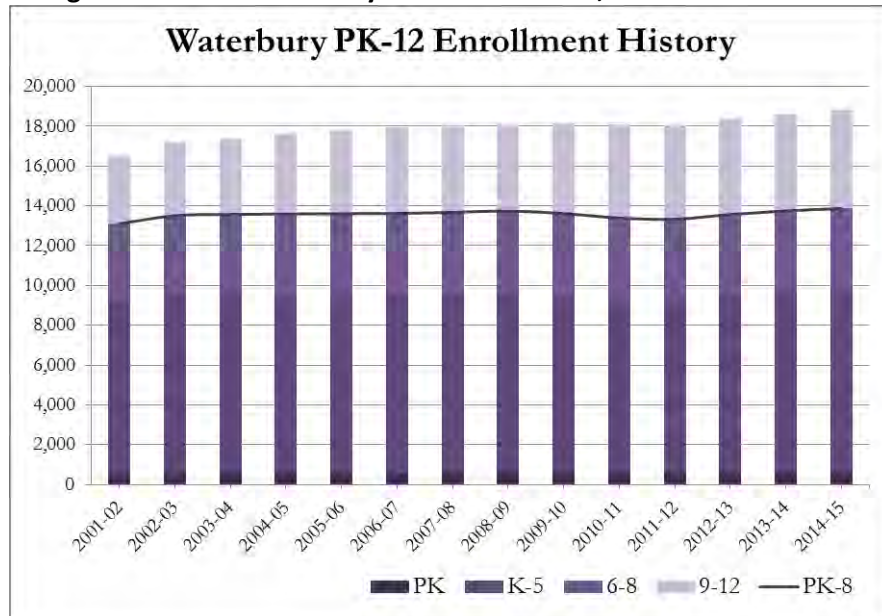


Note: Non-resident student data not available prior to 2006-07; however, non-resident magnet school students prior to 2006-07 are included in the total enrollment.

Sources: CSDE CEDaR and WPS.

Upon further examination, the growth of the last 4 years has occurred more significantly in the K-5 grade level, which increased 5.0% since 2011-2012. Grade 6-8 enrollments increased only 1.6%, and high school enrollments increased 4.0% over the same time period. Enrollment trends by grade level are shown in the following chart.

Figure 27 Waterbury PK-12 Enrollment, 2001-02 to 2014-15



Source: WPS and CSDE CeDar, 2015.

The grade-by-grade enrollment history from 2001-2002 to 2014-2015 for the entire Waterbury Public School district is shown in the following table along with births from 5 years previous. One can follow the progression of a class as it matriculates through the system by tracing the numbers diagonally down to the right. The Class of 2014-2015, with a reported October 1, 2014 enrollment of 1,185 students, entered the system in Kindergarten back in 2002-2003 as a class of 1,698 students. Incoming classes hovered generally between 1,600 and 1,650 for several years through the mid- to late-2000s. However, in 2012-2013 a phenomenal increase in the Kindergarten class occurred. The class increased 8.9% over the previous year and achieved the largest incoming class in recent history at 1,743 students. Moreover, the 2013-2014 incoming Kindergarten class, while not as anomalously large, remained relatively large compared to recent history at 1,688 students. One can trace these large cohorts directly back to the unusual spike in births in 2007 and 2008, as those children would be of age to enter Kindergarten. The Birth to Kindergarten ratio will be addressed in greater detail below. These two successive large classes constitute a significant enrollment bubble that will continue to matriculate through the Waterbury Public Schools system over the next decade.

Table 05 Waterbury Public School Enrollments, 2001-02 to 2014-15
 (TOTALS INCLUDE STATE STREET AND ENLIGHTENMENT)

Year	Birth Year	Births	PK	K	1	2	3	4	5	6	7	8	9	10	11	12	PK-8	9-12	PK-12
2001-02	1996	1,700	523	1,628	1,550	1,416	1,441	1,381	1,274	1,331	1,299	1,261	1,207	884	694	629	13,104	3,414	16,762
2002-03	1997	1,639	590	1,698	1,625	1,422	1,429	1,430	1,385	1,309	1,377	1,248	1,331	909	749	675	13,513	3,664	17,418
2003-04	1998	1,697	623	1,712	1,545	1,481	1,411	1,411	1,379	1,358	1,324	1,328	1,316	921	863	719	13,572	3,819	17,714
2004-05	1999	1,650	583	1,679	1,562	1,456	1,489	1,369	1,401	1,389	1,382	1,282	1,224	1,163	864	802	13,592	4,053	17,907
2005-06	2000	1,607	563	1,650	1,564	1,460	1,455	1,461	1,344	1,391	1,353	1,368	1,160	1,149	1,025	879	13,609	4,213	18,123
2006-07	2001	1,631	540	1,590	1,590	1,513	1,424	1,462	1,439	1,405	1,349	1,309	1,174	1,141	1,085	948	13,621	4,348	18,211
2007-08	2002	1,607	605	1,637	1,498	1,473	1,483	1,418	1,453	1,405	1,377	1,327	1,137	1,140	1,053	1,027	13,676	4,357	18,284
2008-09	2003	1,655	670	1,642	1,533	1,466	1,419	1,467	1,395	1,427	1,379	1,344	1,148	1,122	1,048	997	13,742	4,315	18,316
2009-10	2004	1,628	678	1,653	1,501	1,435	1,379	1,372	1,428	1,330	1,449	1,397	1,237	1,204	1,073	1,009	13,622	4,523	18,145
2010-11	2005	1,633	579	1,614	1,504	1,440	1,377	1,375	1,356	1,397	1,328	1,421	1,268	1,241	1,073	1,102	13,391	4,684	18,075
2011-12	2006	1,650	617	1,601	1,545	1,414	1,418	1,337	1,349	1,322	1,410	1,320	1,279	1,276	1,131	1,042	13,333	4,728	18,061
2012-13	2007	1,819	627	1,743	1,511	1,446	1,400	1,419	1,351	1,313	1,359	1,404	1,216	1,283	1,200	1,111	13,573	4,810	18,383
2013-14	2008	1,721	654	1,688	1,624	1,479	1,441	1,421	1,418	1,338	1,315	1,373	1,292	1,228	1,200	1,154	13,751	4,874	18,625
2014-15	2009	1,678	677	1,654	1,563	1,538	1,445	1,434	1,461	1,413	1,337	1,349	1,283	1,284	1,186	1,185	13,871	4,938	18,809

Source: CSDE, Waterbury Public Schools for 2009-10 through 2014-15.

Historic enrollments by school are shown below with PK-8 buildings highlighted in green, magnet schools highlighted in orange, and middle schools highlighted in blue. Under the district's PK-8 neighborhood school initiative, Barnard and Brooklyn were consolidated as new facilities opened. The table also shows the wide range of total enrollments in current K-5 schools, with Regan at a total enrollment of 279 and Chase at 816.

Table 06 Waterbury Total Enrollment by School

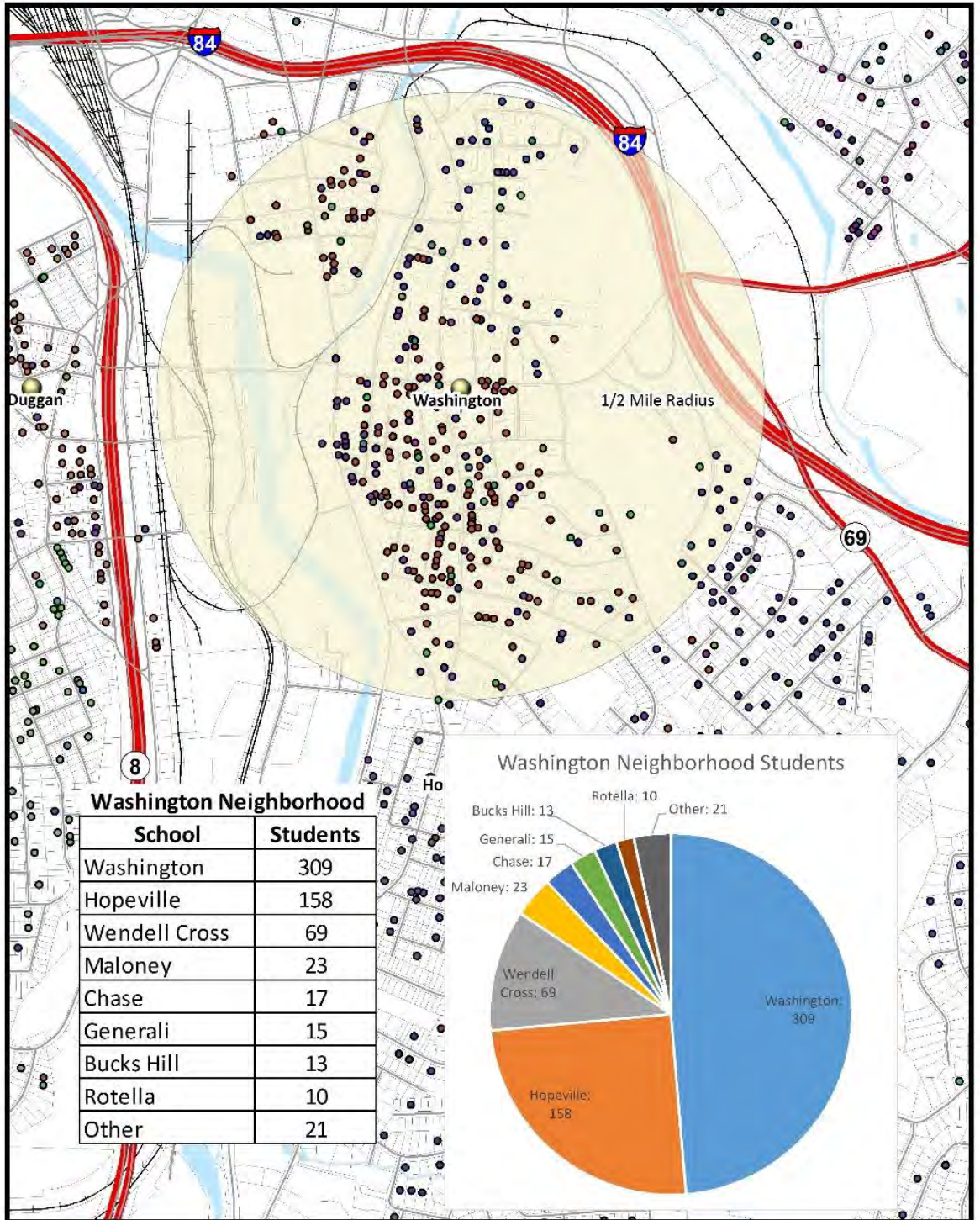
	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15
B. W. Tinker	568	581	521	552	543	533	573	555	550	508	566	563	572	572
Barnard	295	326	285	277	267	276	270	267	250	264				
Brooklyn Elementary			132	172	167	184	229	205	203	189				
Bucks Hill	532	569	534	548	588	541	566	538	547	542	554	408	536	546
Bunker Hill	477	479	511	493	476	487	501	505	470	467	478	485	496	497
Carrington	500	506	489	474	524	552	515	532	494	487	461	457	415	455
Chase	774	789	798	806	835	849	797	802	784	715	756	756	783	816
Driggs	582	591	583	558	541	547	536	560	535	515	530	541	533	515
Duggan											348	401	430	432
F. J. Kingsbury	509	570	550	487	500	516	493	465	471	473	515	510	515	512
Gilmartin	260	288	262	209	214	204	220	208	214	296	364	452	483	471
Hopeville	425	438	390	444	457	469	464	437	414	417	445	460	485	475
Maloney Interdistrict Magnet	506	477	482	519	491	492	509	519	521	535	531	529	530	520
Margaret M. Generali Elementary	595	578	584	581	599	617	561	596	582	557	533	585	601	603
Michael F. Wallace Middle	1,323	1,319	1,364	1,337	1,360	1,346	1,342	1,329	1,340	1,348	1,223	1,220	1,171	1,159
North End Middle	1,220	1,176	1,166	1,180	1,261	1,252	1,257	1,226	1,231	1,206	1,195	1,105	1,050	1,016
Jonathan Reed												293	343	402
Regan	298	317	317	324	330	294	313	299	291	280	292	254	261	279
Rotella Interdistrict Magnet	439	501	532	536	538	541	542	542	542	544	543	543	542	541
Sprague	388	366	383	388	402	423	404	392	369	351	351	381	455	429
Walsh	498	564	540	553	523	515	534	538	526	549	484	493	446	443
Washington	346	318	344	314	296	322	299	299	297	306	335	481	323	327
Waterbury Arts Magnet (Middle)				300	310	316	313	319	316	319	330	333	331	330
Wendell L. Cross	307	344	325	351	344	374	348	336	350	358	359	340	350	350
West Side Middle	1,318	1,396	1,480	1,236	1,181	1,149	1,197	1,276	1,193	1,147	1,076	1,057	988	1,021
Woodrow Wilson	421	429	377	370	299	282	288	327	348	353	349	359	373	391

Source: CSDE, Waterbury Public Schools for 2009-10 through 2014-15.

ATTENDANCE BOUNDARIES AND ENROLLMENT

While it is important to understand trends in enrollment by school, it is difficult to discern any neighborhood enrollment trends from that data because the school administration relies on a system of ad hoc placement of students through its Intake Center due to a shortage of classroom seats in the district. A large number of students enter the school system each year after staffing has been determined for an upcoming school year (generally in July) and throughout the school year itself. A significant number of students also leave the system so that there is not a substantial increase in enrollments from year to year due solely to students entering through the Intake Center. However, the placement of students where there are seats available results in very loose school district boundaries at best. For example, the map below shows the neighborhoods within a ½ mile radius of Washington Elementary and current elementary students color-coded by the school they actually attend. Within that neighborhood, not quite half of the current elementary school students attend Washington. Even excluding the students who reside in that area and attend a magnet school or Hopeville (which is a nearby facility), more than 20% of students who live there attend schools elsewhere presumably because of placements made by the district out of space concerns.

Figure 28 Washington Neighborhood Enrollments, 2014-15



Waterbury Public Schools
Facility Utilization & Redistricting Plan

Source:
 * Ipsos, School District boundaries, street footcandles
 City of Waterbury, Geographic Information Systems Dept.
 * Voting area, Commission Legislative of Environmental
 Protection Mass 4 Geographic Information Center (2011)
 This map was developed for use as a planning
 document. Distances may not be exact.

0 0.125 0.25 0.5 Miles



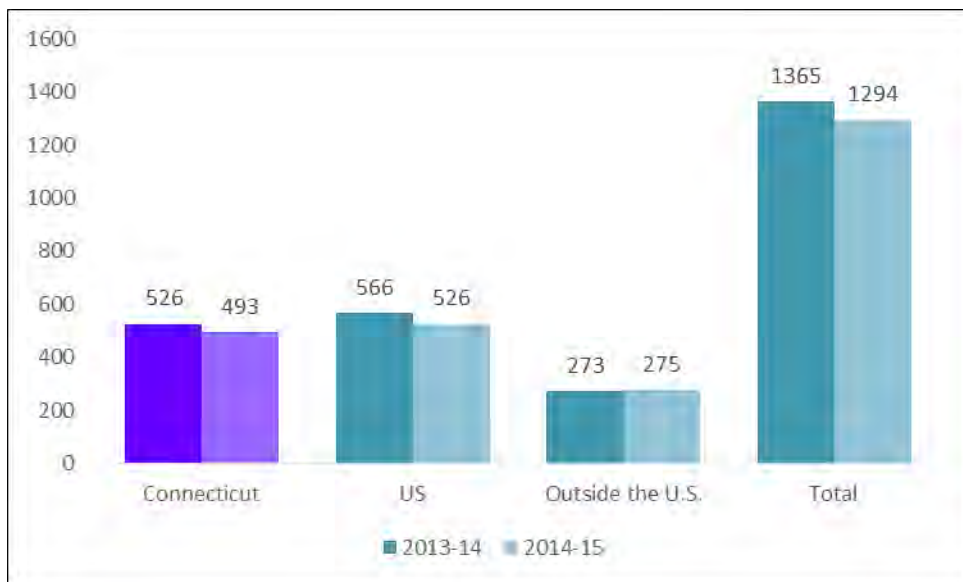
MILONE & MACBROOM
 June 2015

Source: Waterbury Public Schools.

STUDENT IN-MIGRATION

Intake Center data was analyzed to better understand where new students come from, where they are settling in Waterbury, and their particular needs. From July 2013 through June 2014 the Intake Center processed 1,365 new PK-8 students to the system. From July 2014 through May 2015 (latest data available) the Intake Center processed 1,294 new PK-8 students. The breakdown by origin of these new students is shown in the charts below. About 20% of these new students are moving in directly from a country or territory outside of the U.S. About 40% come from other states, mainly New York, New Jersey, Pennsylvania, and Massachusetts. Another 40% come from other large cities in Connecticut and neighboring communities, especially Naugatuck.

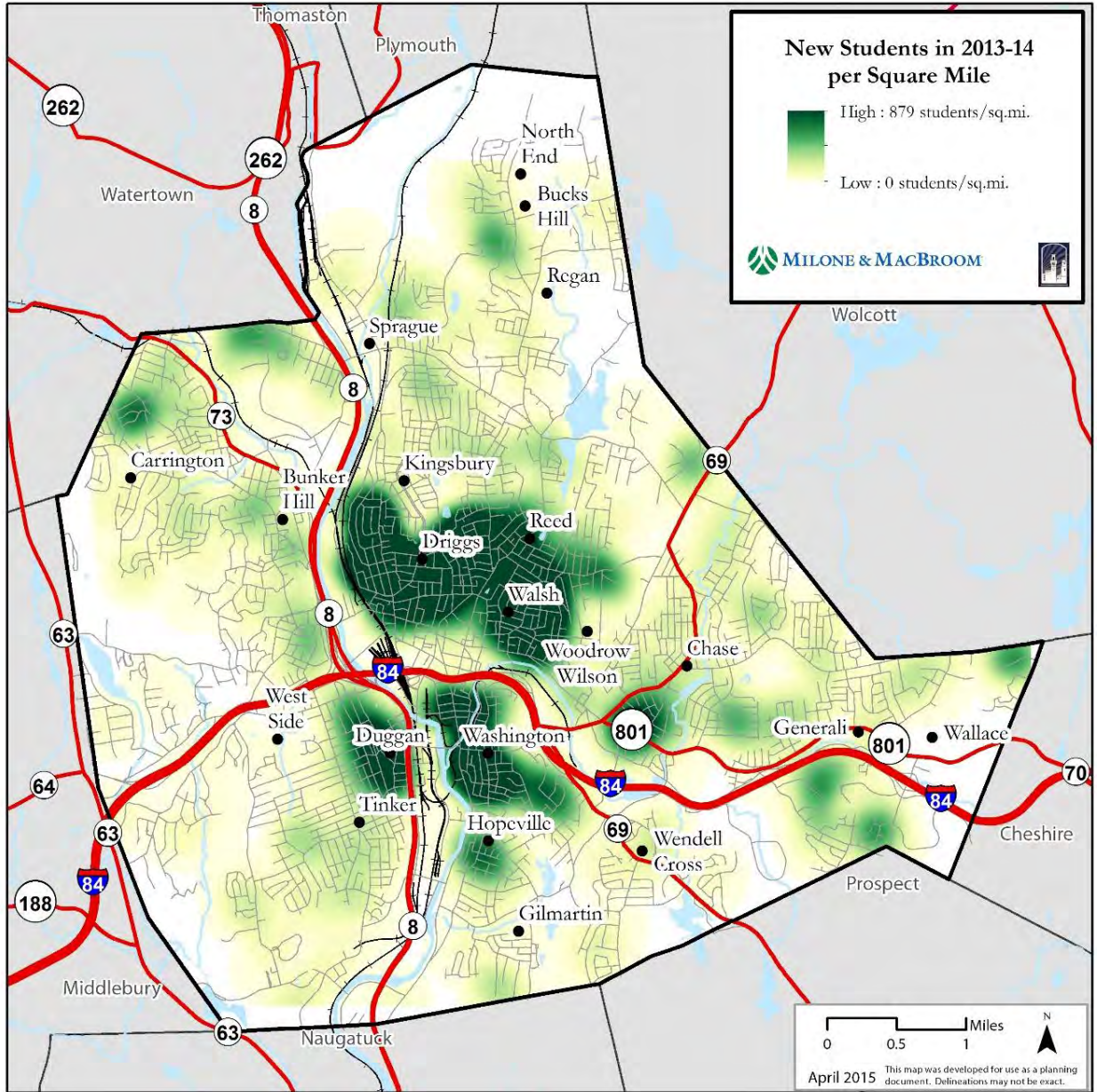
Figure 29 PK-8 Student In-Migration Sources, in 2013-14 and 2014-15



Source: WPS Student Intake Center.

There are clear patterns as to where these new students are settling in Waterbury. Intake center students were geocoded according to the residence address provided. That data was then spatially analyzed to determine concentrations of new students. The map below shows areas with high concentrations of students entering through the Waterbury School Intake Center. As the map shows, the core of the city and the East End experience the greatest influx of students through the course of a school year. It is important to plan for space to accommodate these new arrivals as the school district continues moving towards better defined neighborhood districts.

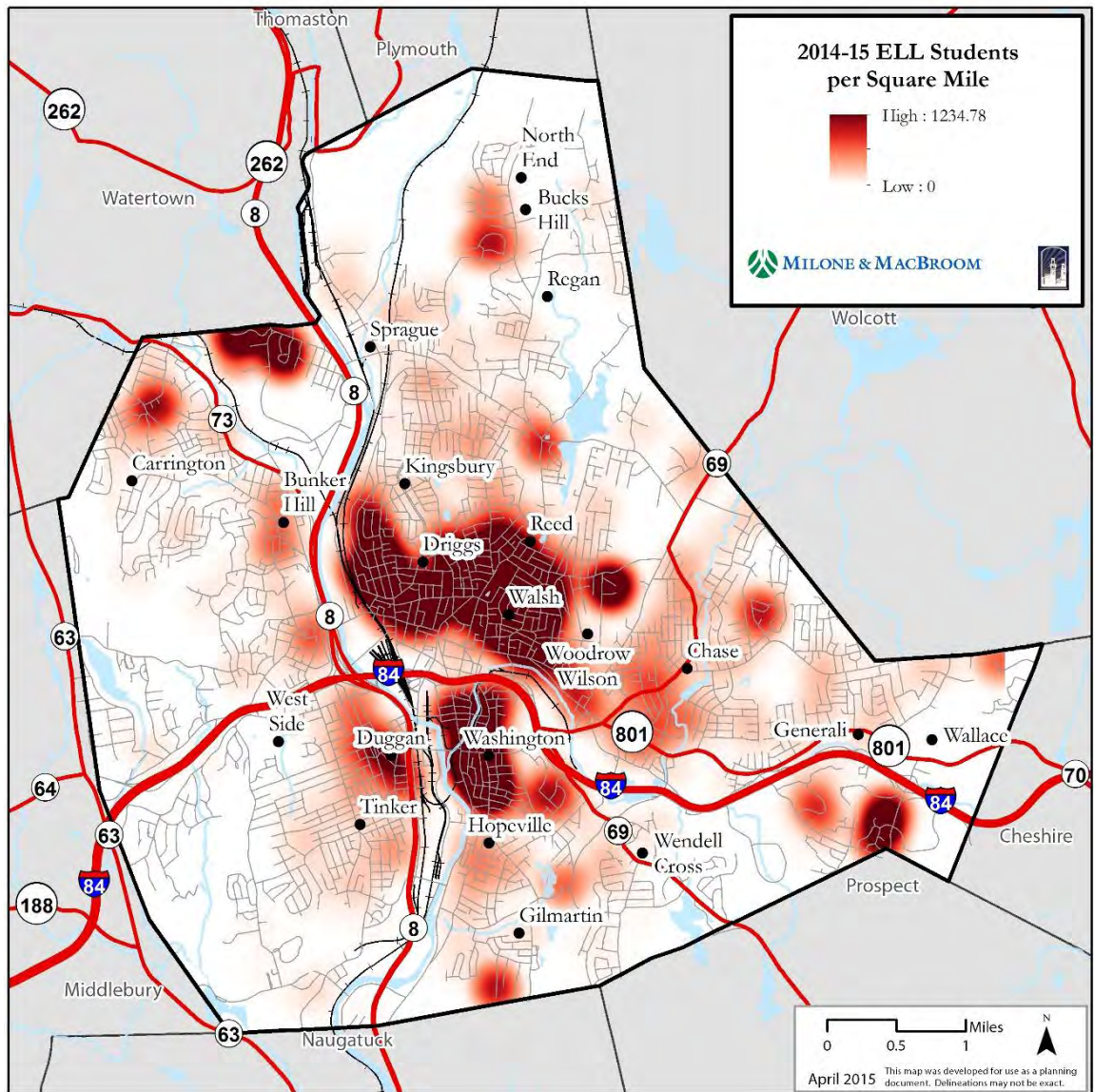
Figure 30 Number of Intake Center Students in 2013-14 per Square Mile



Source: WPS Intake Center.

Finally, as English language services are increasingly needed, enrollment data was spatially analyzed in order for Waterbury Public Schools to consider the most appropriate locations for English language programming – whether bilingual classrooms or ELL programming. The following map shows concentrations of 2014-2015 students with English language needs. The areas of concentrated need mirror the areas where new students who enter the district through the Intake Center are located: the core of the city and the East End.

Figure 31 ELL Students per Square Mile, 2014-15



Source: WPS Intake Center.

SECTION 2 - ENROLLMENT PROJECTIONS

The cohort-survival methodology, with some modifications, was used to calculate all projections in this report. This is a standard methodology for projecting populations and student enrollments and relies on the recent past as a predictor of the future. It works well for stable populations, including those that are growing or declining at a steady rate.

PERSISTENCY RATIOS

Persistency ratios were calculated from historic and current enrollments to determine growth or loss in a grade cohort as it progresses through the school system. Persistency ratios of 1.00 mean that the cohort remains the same as it advances from one grade to the next. A persistency ratio of 1.05 means the cohort increased by 5% or a class of 100 gained five additional students the next year. Enrollment data from 2001-2002 through 2014-2015 and birth data from 1996 to 2009 were used to calculate the Birth-K and grade-to-grade persistency ratios shown in the table below. Persistency ratios account for all external factors affecting enrollments from student mobility to transfers in and out of the system and from housing trends to trends in other public and private school enrollments.

Table 07 Grade to Grade Persistency Ratios by School Year, 2002-03 to 2014-15

Year	Birth-K	K-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	Est. Migration ¹
2002-03	1.0360	0.9982	0.9174	1.0092	0.9924	1.0029	1.0275	1.0346	0.9607	1.0555	0.7531	0.8473	0.9726	
2003-04	1.0088	0.9099	0.9114	0.9923	0.9874	0.9643	0.9805	1.0115	0.9644	1.0545	0.6920	0.9494	0.9599	0.44%
2004-05	1.0176	0.9124	0.9424	1.0054	0.9702	0.9929	1.0073	1.0177	0.9683	0.9217	0.8837	0.9381	0.9293	-1.69%
2005-06	1.0268	0.9315	0.9347	0.9993	0.9812	0.9817	0.9929	0.9741	0.9899	0.9048	0.9387	0.8813	1.0174	-0.62%
2006-07	0.9749	0.9636	0.9674	0.9753	1.0048	0.9849	1.0454	0.9698	0.9675	0.8582	0.9836	0.9443	0.9249	-1.34%
2007-08	1.0187	0.9421	0.9264	0.9802	0.9958	0.9938	0.9764	0.9801	0.9837	0.8686	0.9710	0.9229	0.9465	-0.90%
2008-09	0.9921	0.9365	0.9786	0.9633	0.9892	0.9838	0.9821	0.9815	0.9760	0.8651	0.9868	0.9193	0.9468	-1.50%
2009-10	1.0154	0.9141	0.9367	0.9379	0.9669	0.9748	0.9656	1.0028	0.9942	0.9256	1.0078	0.9394	1.0773	-2.07%
2010-11	0.9890	0.9093	0.9594	0.9610	0.9993	0.9920	0.9958	0.9896	0.9860	0.9322	1.0032	0.9110	1.2353	-2.65%
2011-12	0.9703	0.9573	0.9428	0.9833	0.9717	0.9869	0.9816	1.0028	0.9827	0.9128	0.9930	0.9046	1.1898	-1.29%
2012-13	0.9582	0.9438	0.9353	0.9880	1.0021	1.0075	0.9683	1.0172	0.9832	0.9282	0.9961	0.9456	0.9841	-1.50%
2013-14	0.9808	0.9317	0.9788	0.9965	1.0150	0.9993	0.9904	1.0015	1.0103	0.9202	1.0099	0.9353	0.9617	-0.58%
2014-15	0.9857	0.9259	0.9470	0.9770	0.9951	1.0281	0.9965	0.9993	1.0259	0.9345	0.9938	0.9658	0.9875	0.22%
Long Term Average	0.9980	0.9366	0.9445	0.9822	0.9901	0.9918	0.9931	0.9986	0.9841	0.9294	0.9394	0.9234	1.0102	
Last 5-Yr Average	0.9768	0.9336	0.9527	0.9812	0.9967	1.0028	0.9865	1.0021	0.9976	0.9256	0.9992	0.9325	1.0717	
Last 3-Yr Average	0.9749	0.9338	0.9537	0.9872	1.0041	1.0116	0.9850	1.0060	1.0065	0.9276	0.9999	0.9489	0.9777	
Last 2-Year Average	0.9833	0.9288	0.9629	0.9868	1.0051	1.0137	0.9934	1.0004	1.0181	0.9273	1.0018	0.9506	0.9746	
3-Year Weighted Avg	0.9795	0.9308	0.9557	0.9854	1.0029	1.0151	0.9897	1.0030	1.0136	0.9287	0.9995	0.9523	0.9783	

Note: ¹ Derived from the comparison of 3-8 enrollment aggregate one year with the 2-7 aggregate from the prior year.

The table above includes an estimate of migration calculated from the change in the 2nd through 7th grades aggregated as they progress to the 3rd through 8th grades. As these are traditionally the most stable enrollment years, this helps to estimate whether the school system experiences an overall net in-migration or out-migration from year to year. Despite increasing enrollments, Waterbury schools traditionally experience a small out-migration of students from year to year, meaning the large number of students entering through the Intake Center and between school years generally does not make up for the number of students leaving the system. However, in 2014-2015, the system experienced a small in-migration by this estimate of migration. This bears watching, as a continued positive in-migration would signal a change from the normal pattern.

The Birth-K ratio is consistently high for an urban community in Connecticut, ranging from a low of 0.9703 in 2011-2012 to a high of 1.0360 in 2002-2003. By way of comparison, the following table shows average Birth-K persistency ratios in many of Connecticut’s urban communities for 2011-2012 through 2013-2014. Waterbury’s is the highest average and is significantly higher than all. While many cities experience a loss of students from births, Waterbury has an almost one-to-one return on births 5 years later. The relationship between births and Kindergarten enrollments has been highly consistent over the last 4 years, as shown in the chart below, where the Kindergarten trend very closely mirrors the birth trend 5 years prior.

Figure 32 Kindergarten Enrollments and Births Five Years Earlier

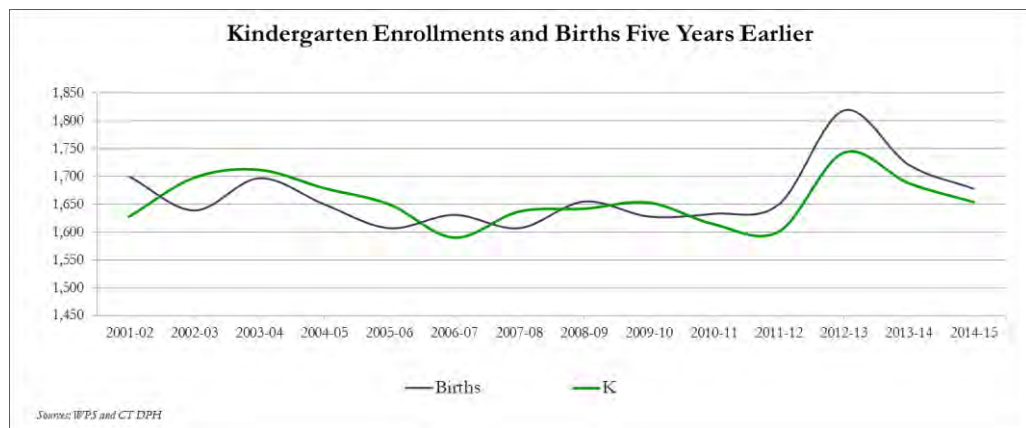


Table 08 Comparison of Birth-K Ratios

District	2011-12 to 2013-14 Average Birth-K Ratio
Waterbury	0.970
Danbury	0.758
Bridgeport	0.793
East Hartford	0.740
Hartford	0.821
Manchester	0.714
Meriden	0.800
New Haven	0.836
Norwalk	0.727
Stamford	0.746

Source: Prepared by MMI based on CSDE and CT DPH data.

ASSUMPTIONS

Low, medium, and high projections were prepared based on different sets of assumptions regarding persistency ratios, economic conditions, and birth trends. All three projection models were tightly clustered. The high growth model appears most likely based on all analyses, including projected continued population growth, on-going student in-migration and a statewide trend in downsizing and closure of parochial schools. Greatest confidence can be placed in the first 5 years of projections, as these are based on known data: current enrollments and births that have occurred. Finally, the district’s PK program was assumed to increase based on state initiatives to increase PK seats and discussions with the Waterbury Public Schools Administration. The increase is assumed to begin in 2018-2019 with two PK sections added in that year and in each of the next 4 years. Thus, the PK program is assumed to increase by 200 students by 2022-2023, which we believe to be a conservative assumption, given the current educational emphasis on early learning.

DISTRICTWIDE PROJECTIONS

Districtwide PK-12 enrollments are projected to increase 1.0% over the next 5 years to 19,000 students. Enrollments are projected to peak at almost 19,100 students in 2021-2022 before beginning a very gradual decrease. It is important to note that while the overall total enrollment is projected to increase there are variations amongst grade levels. Elementary enrollments are projected to decrease by 5% over the next 5 years, while middle school enrollments are projected to increase 10.5% during the same time frame. This is due in part to the matriculation of the enrollment “bubble” – the Kindergarten classes of 2012-2013 and 2013-2014 – from elementary to middle grades. High school enrollments are also projected to increase by 4.9% over the next 5 years and another 4.0% over 10 years.

Using these districtwide projections as a basis, by-school projections were also prepared and can be found in Appendix A. The individual school projections were meant to facilitate the analysis of facility utilization only. Due to the district’s system of ad hoc placement of students, the trends in each school’s enrollments are contrived.

Table 09 Waterbury Public Schools Enrollment Projections

School Year	Birth Year	PK	K	1	2	3	4	5	6	7	8	9	10	11	12	PK-5	6-8	9-12	PK-12
2014-15	2009	1,678	1,654	1,563	1,538	1,445	1,434	1,461	1,413	1,337	1,349	1,283	1,284	1,186	1,185	9,772	4,099	4,938	18,809
2015-16	2010	1,543	1,517	1,536	1,505	1,518	1,452	1,454	1,451	1,414	1,361	1,251	1,285	1,221	1,156	9,659	4,226	4,913	18,798
2016-17	2011	1,572	1,546	1,409	1,479	1,485	1,525	1,472	1,444	1,452	1,439	1,262	1,253	1,222	1,189	9,594	4,335	4,927	18,856
2017-18	2012	1,535	1,509	1,436	1,357	1,460	1,493	1,546	1,463	1,445	1,478	1,335	1,265	1,191	1,191	9,478	4,385	4,981	18,844
2018-19	2013	1,607	1,581	1,402	1,382	1,339	1,467	1,513	1,536	1,463	1,471	1,371	1,337	1,202	1,161	9,401	4,470	5,071	18,942
2019-20	2014	1,544	1,518	1,468	1,350	1,364	1,346	1,487	1,503	1,537	1,490	1,364	1,373	1,271	1,172	9,290	4,530	5,180	19,000
2020-21	2015	1,581	1,554	1,410	1,414	1,332	1,371	1,364	1,478	1,504	1,565	1,381	1,366	1,305	1,239	9,242	4,546	5,292	19,080
2021-22	2016	1,592	1,565	1,444	1,358	1,395	1,339	1,390	1,355	1,478	1,531	1,451	1,384	1,299	1,272	9,327	4,364	5,406	19,098
2022-23	2017	1,588	1,562	1,454	1,390	1,340	1,402	1,357	1,381	1,356	1,505	1,420	1,453	1,315	1,266	9,381	4,241	5,455	19,078
2023-24	2018	1,599	1,572	1,450	1,400	1,372	1,347	1,421	1,348	1,381	1,380	1,395	1,422	1,382	1,282	9,439	4,110	5,482	19,031
2024-25	2019	1,604	1,577	1,461	1,397	1,382	1,379	1,365	1,412	1,349	1,406	1,280	1,398	1,352	1,347	9,436	4,167	5,377	18,980

Source: Prepared by MMI, 08/2015.

SECTION 3 – FACILITIES UTILIZATION ANALYSIS

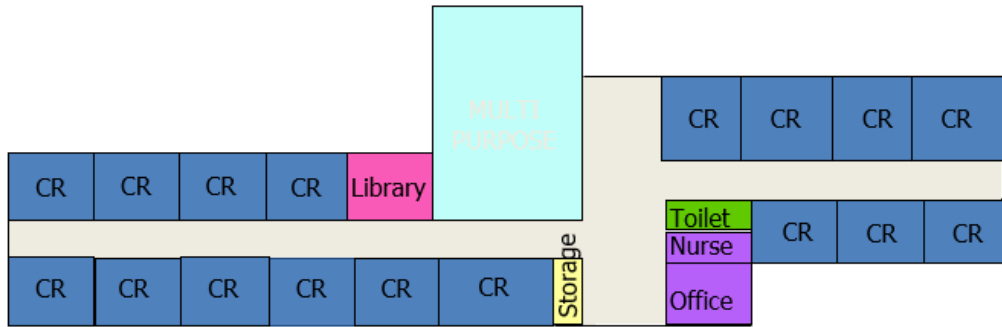
This section examines the capacities and functional utilization rates of Waterbury Public Schools PK-5, 6-8, and PK-8 facilities. High schools were not included in this study.

As educational models have evolved so have school buildings. A significant challenge for school districts such as Waterbury is fitting current educational programming into buildings of widely varying vintages. The following graphics help illustrate the issues older buildings present.

In addition to changes affecting overall school size, classroom sizes and arrangements have also evolved over time, generally increasing classroom sizes to accommodate a more self-directed learning environment. The following graphics illustrate the evolution of a 20-seat classroom.

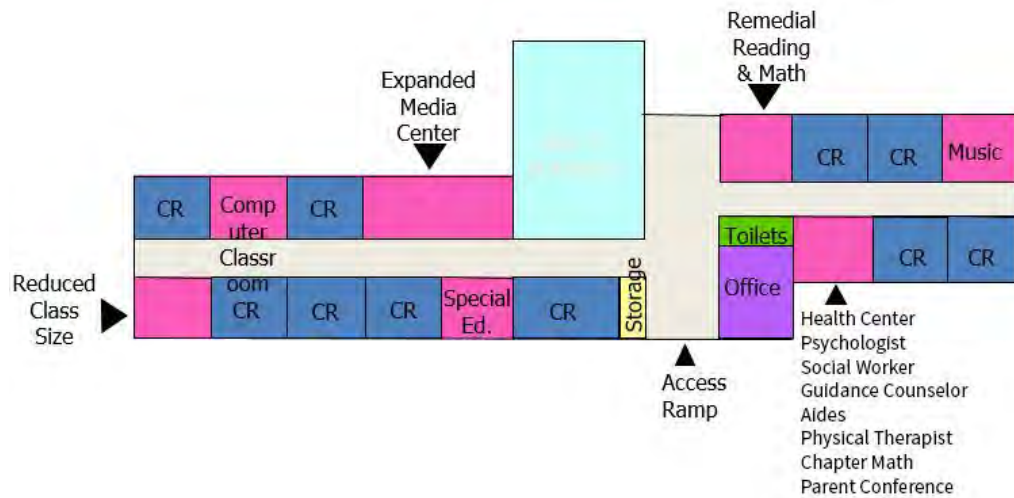
Bearing this in mind, it becomes apparent that there are challenges to providing a similar educational experience in a school building built in 1882, such as Driggs, as in a school building built in 2013, such as Carrington.

Figure 33 New School with 17 Classrooms in 1966 (500 Kids)



Source: Prepared by SLAM. 2015.

Figure 34 Same School 34 Years Later (2000) with Only 10 Classrooms (250 Kids)



Source: Prepared by SLAM. 2015.



Source: Prepared by SLAM, 2015

FACILITIES INVENTORY

The SLAM Collaborative, Inc. was commissioned to conduct a space inventory and evaluation of the capacity for Waterbury’s PK-5, PK-8, and 6-8 facilities, excluding the magnet schools. All schools were evaluated for general conditions and utilization from facilities walkthroughs conducted in February and March of 2015. A facility questionnaire and follow-up discussions were held with administration to verify classroom usage, identify building deficiencies, and to explore potential opportunities. The utilization analysis included benchmarking facilities to discern inequalities and/or inadequacies and provided a functional capacity for each facility.

The table below provides a summary of all Waterbury Public Schools elementary and middle school facilities. A detailed inventory of classrooms and educational spaces is provided in Appendix B. A summary matrix of the facilities surveyed is provided below.

Table 10 Summary of all Waterbury Public Schools Elementary and Middle School Facilities

Grade Level	Year Built	Number of Core Classrooms	Number of Music Classrooms	Number of Art Classrooms	Computer Labs	Library	Gymnasium	Cafeteria	Auditorium	Stage	Site Area (Acres)
Bucks Hill	1953	26	1	1	1		Combined	Combined	Combined	Y	10.0
Bunker Hill	1905	23	1	1	1	Y	Combined	Y	Combined	Y	1.3
Chase	1905	34	0	1	2	Y	Combined	Y,Portables	Combined	Y	3.6
Driggs	1899	25	0	1	1	Y	Combined	Y	Combined	Y	1.2
General	1923	26	1	0	1	Y	Combined	Y	Combined	Y	2.7
Hopeville	1917	24	Combined	Combined	1	Y	Combined	Y	Combined	N	3.8
Kingsbury	1917	22	0	0	1	Y	Combined	Y	Combined	Y	2.0
Regan	1968	11	0	0	1	Y	Combined	Combined	N	N	8.6
Sprague	1913	22	1	1	1	Y	Combined	Combined	Combined	N	1.2
Tinker	1925	23	0	1	1	Y	Combined	Y	Combined	Y	1.3
Walsh	1957	25	1	1	1	Y	Combined	Combined	Combined	Y	2.8
Washington	1882	16	1	1	0	Y	Combined	Combined	N	N	1.2
Wendell Cross	1953	16	0	0	0	Y	Combined	Combined	Combined	Y	9.5
Wilson	1927	20	1	1	1		Combined	Y	Combined	Y	3.9
<hr/>											
Carrington	2013	21	4	2	2	Y	Y	Combined	Combined	Y	15.0
Duggan	2011	20	2	1	1	Y	Y	Combined	Combined	Y	2.6
Gilmartin	2010	20	2	1	1	Y	Y	Combined	Combined	Y	5.0
Reed	2012	20	1	1	1	Y	Y	Combined	Combined	Y	9.3
<hr/>											
North End Middle	1978	46	Common	Common	1	Y	Common	Common	Common	Common	84.0
Wallace Middle	1973	47	Common	Common	1	Y	Common	Common	Common	Common	77.5
West Side Middle	1976	50	2	3	4		Y	Y	Aux Gym	Y	9.1

Source: Prepared by SLAM and MMI. 08/2015.

BENCHMARKING

A “model” PK-8 school space program was used as a benchmark for analyzing the schools surveyed in this study. The model program was the basis of the district’s four recently built PK-8 schools. As the newest facilities in the school district’s portfolio, they are assumed to represent the design appropriate for current educational programming and delivery. The model school consists of the following:

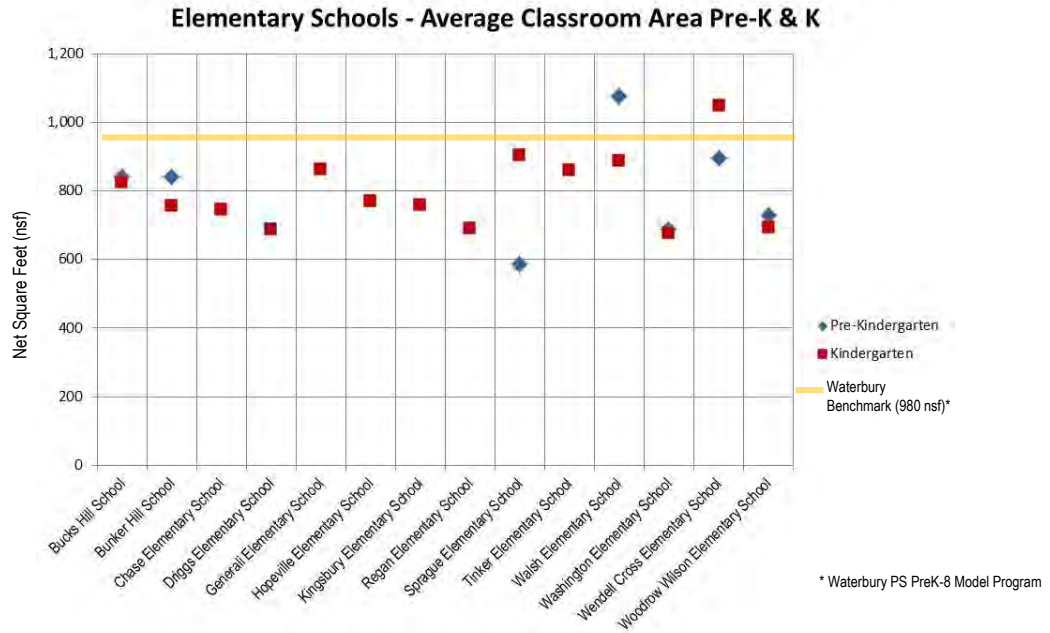
Table 11 Waterbury Public Schools Model PK-8 Facility

Grade Level	Classroom Size (sq ft)	Recommended Classroom Area per Student per Seat (sq ft)
PK - K	980	44
Grades 1-5	800	32
Grades 6-8	800	32

Source: Prepared by SLAM and MMI. 08/2015.

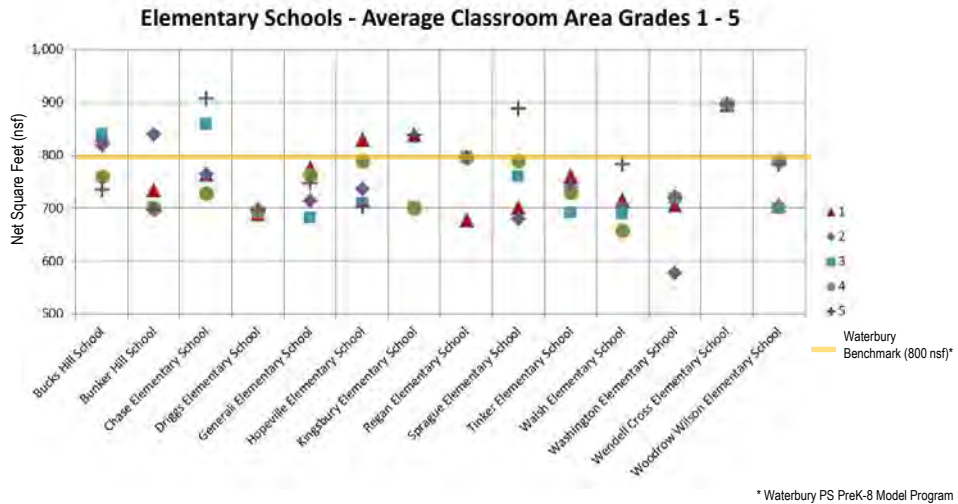
Not surprisingly, many of the schools in the district have smaller classrooms than the model. Some facilities, such as Driggs and Washington, fall well below the benchmark in all grade levels, while other schools, such as Bucks Hill and Kingsbury, have a mix of classroom sizes both above and below the model’s size. In addition to the varying ages of the structures, field surveyors found evidence of coopting smaller spaces for classroom use due to enrollment pressures in several buildings. The following charts show where grade-level average classroom size falls by individual school compared with the model program.

Figure 36 Elementary Schools – Average Classroom Area PK-K



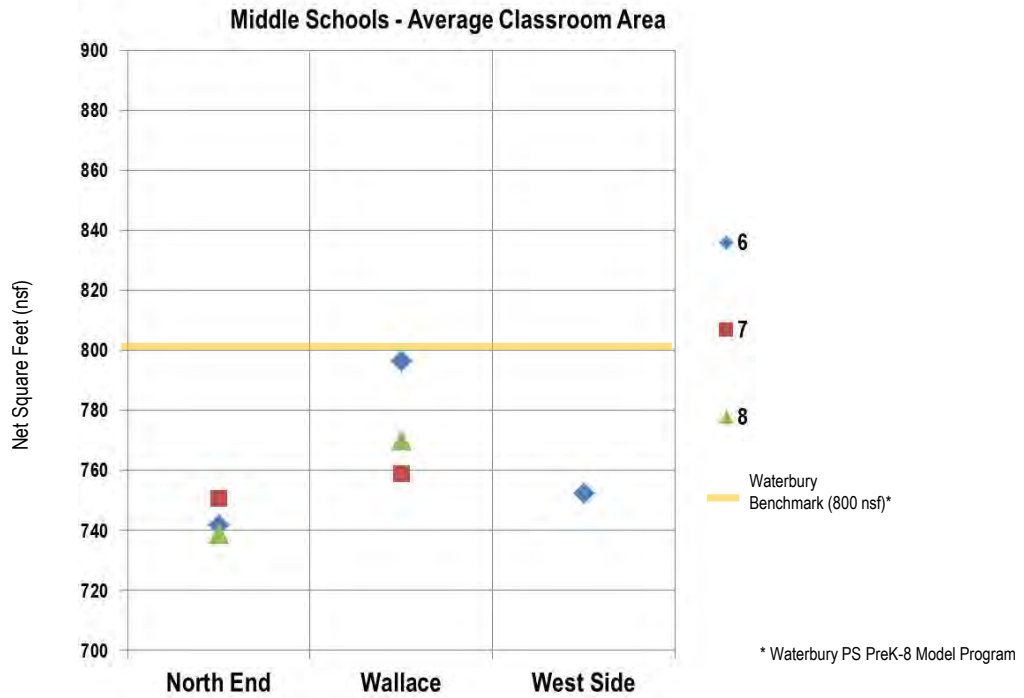
Source: SLAM Field Survey 02/2015-03/2015.

Figure 37 Elementary Schools – Average Classroom Area Grades 1-5



Source: SLAM Field Survey 02/2015-03/2015.

Figure 38 Middle Schools – Average Classroom Area



Source: SLAM Field Survey 02/2015-03/2015.

Despite these discrepancies in average room sizes from school to school, the district’s teacher’s union contract has a uniform cap on the maximum number of students per classroom. Thus, the number of students allowed in a classroom by contract exceeds the recommended class loading level by space standards.

FUNCTIONAL CAPACITY

For this study, the functional capacity is defined as the number of students the facility can accommodate given the specific educational programs, class schedules, size of the instructional classrooms, and teacher's contractual class size maximums. The functional capacity of each building was determined based on the number and size of current grade-level instruction (or homerooms in the middle schools), BDLC, and ESL rooms. An industry standard of 32 net square feet (nsf) per seat was used to determine the maximum capacity of each classroom space in order to account for the varying classroom sizes across the district's schools. In those instances where the classroom size exceeded the benchmark, the teacher contract (shown below) was used as the maximum capacity.

- K: 20 students/classroom
- 1st: 24 students/classroom
- 2nd-3rd: 25 students/classroom
- 4th-8th : 28 students/classroom

A loading factor of 90% was applied to reflect the reality that one cannot expect to fill every seat in every classroom to its maximum capacity. This is especially true for PK-8 schools, where you typically have more grades and fewer classrooms per grade level, resulting in a loss in economy of scale. Grade cohorts vary in size, neighborhoods have various enrollment trends, and schools need to maintain some elasticity to accommodate scheduling and/or enrollment fluctuations.

The following table shows the calculated capacity of each elementary and middle school in the district and compares it to October 1, 2014 enrollments to determine facility utilization. The district has a total capacity of 11,229 seats and an overall utilization rate of 107% for its elementary and middle schools. Some individual schools are operating at more than 120% utilization, including Regan and Tinker. Out of 21 total facilities surveyed, only four are operating at less than 100% utilization. One of those four is Walsh School, where enrollments are intentionally held low as a Turnaround School. Another is Reed, where the district has taken steps to redraw school boundaries for the 2015-2016 school year to increase enrollments.

Table 12 2014-15 School Facilities Utilization Summary

	PK	K	1	2	3	4	5	6	7	8	TOTAL ENROLLMENT (10/2014)	FUNCTIONAL CAPACITY BASED ON SPACE	% UTILIZED
PK-5's													
Bucks Hill	15	122	106	93	85	65	75	0	0	0	561	545	103%
Bunker Hill	13	101	88	73	78	73	84	0	0	0	510	446	114%
Chase	0	135	135	147	121	138	140	0	0	0	816	714	114%
Driggs	13	100	101	87	78	68	81	0	0	0	528	446	119%
Generali	0	113	114	99	93	77	107	0	0	0	603	552	109%
Hopeville	0	98	79	84	88	54	72	0	0	0	475	467	102%
Kingsbury	0	82	89	84	92	81	84	0	0	0	512	445	115%
Regan	0	39	46	48	45	51	50	0	0	0	279	223	125%
Sprague	32	91	75	75	72	64	52	0	0	0	461	430	107%
Tinker	0	92	90	102	101	98	89	0	0	0	572	464	123%
Walsh	12	69	73	80	71	79	71	0	0	0	455	509	89%
Washington	13	60	54	61	50	47	55	0	0	0	340	287	118%
Wendell Cross	16	73	71	51	50	49	56	0	0	0	366	375	98%
Wilson	54	98	78	54	50	57	54	0	0	0	445	440	101%
PK-8'S													
Carrington	32	54	48	70	47	77	55	51	53	0	487	434	112%
Duggan	32	45	48	53	50	55	56	43	41	41	464	408	114%
Gilmartin	35	60	49	47	46	55	55	56	53	50	506	465	109%
Reed	25	51	46	49	50	59	42	47	32	26	427	517	83%
Middle Schools													
North End Middle	0	0	0	0	0	0	0	339	323	354	1,016	916	111%
Wallace Middle	0	0	0	0	0	0	0	412	382	365	1,159	1,049	110%
West Side Middle	0	0	0	0	0	0	0	345	324	352	1,021	1,099	93%
TOTAL	292	1,483	1,390	1,357	1,267	1,247	1,278	1,293	1,208	1,188	12,003	11,229	107%

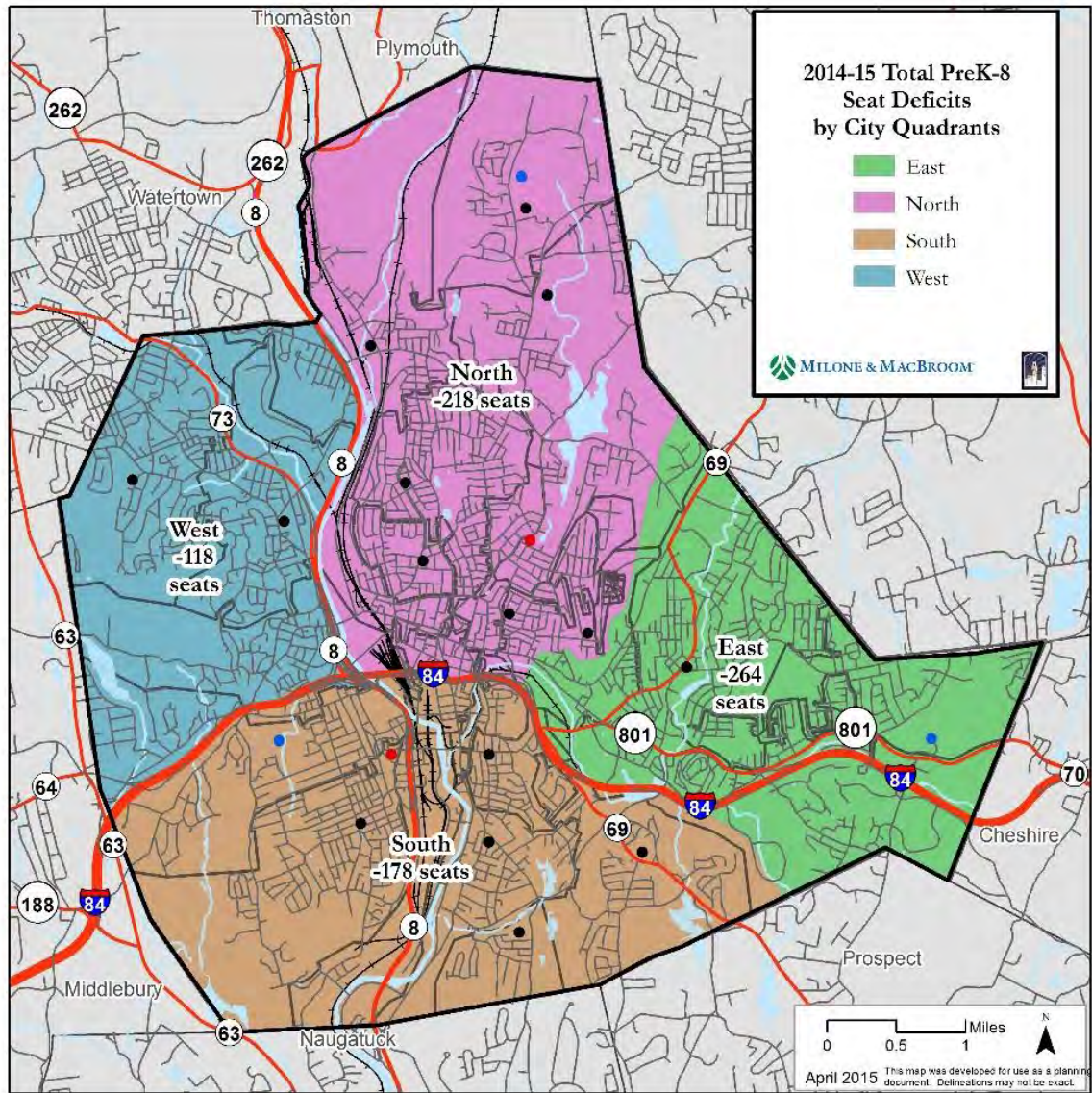
Source: Prepared by SLAM and MMI. 08/2015.

Based on these functional capacity numbers and 2014-2015 enrollments, a current seat deficit by quadrant of the city was calculated and is shown on the following map. Knowing that the district currently places students in schools with seat availability rather than strictly adhering to neighborhood boundaries to avoid severe overcrowding, individual school seat deficits do not reliably signify the actual need of a neighborhood or area. As the map shows, seat deficits are widespread; however, the greatest need is in the East and North Ends of the city.

PROJECTED FACILITIES UTILIZATION

The following table shows projected facility utilization and the difference between the school's seat capacity and projected enrollment over the next eight years. It is important to note again that these by-school projections reflect the ongoing ad hoc placement of students in schools rather than true neighborhood trends. For that reason, the subtotal figures are more accurate than any individual school's numbers. Currently, the district's PK-5 schools have a seat deficit of 583, and while that deficit is expected to shrink, it will remain at a deficit of 370 in five years, and the deficit is likely to begin to increase in the latter half of the projections. The PK-8 schools are currently operating with a nearly 60-seat deficit that is expected to increase over the next few years, especially as the district intends to make a small attendance zone change to send an approximately 40 additional students to Reed to make better use of the building. This change is not reflected in the projections below. Finally, the middle schools are currently operating with a 132-seat deficit that is projected to increase to a deficit of 462 by 2019-2020. Overall, the PK-8 seat deficit, which is approximately 780 seats currently, is projected to peak at a deficit of about 890 seats in 2018-2019. From there, the overall deficit will slowly shrink, remaining at approximately 680 by 2022-2023.

Figure 39 2014-15 Total PK-8 Seat Deficits by City Quadrants



Source: Prepared by MMI. 08/2015.

Table 13 Projected Facility Utilization and Seat Differential between Capacity and Projected Enrollment, 14-15 to 22-23

	14-15		15-16		16-17		17-18		18-19		19-20		20-21		21-22		22-23	
	Util	Seat Diff	Util	Seat Diff	Util	Seat Diff	Util	Seat Diff	Util	Seat Diff	Util	Seat Diff	Util	Seat Diff	Util	Seat Diff	Util	Seat Diff
Bucks Hill	103%	-17	113%	-69	123%	-123	129%	-158	133%	-177	132%	-172	131%	-171	132%	-175	132%	-175
Bunker Hill	115%	-65	114%	-62	113%	-59	110%	-47	110%	-42	113%	-58	111%	-50	112%	-53	112%	-54
Chase	114%	-102	116%	-112	115%	-110	117%	-118	115%	-109	113%	-95	112%	-83	112%	-87	112%	-88
Driggs	119%	-83	113%	-59	111%	-48	106%	-27	108%	-36	106%	-26	105%	-24	110%	-46	111%	-47
Generali	109%	-51	104%	-24	105%	-25	103%	-19	102%	-13	100%	0	99%	4	100%	1	100%	0
Hopeville	102%	-8	99%	3	101%	-7	98%	8	97%	12	97%	16	95%	22	96%	20	96%	19
Kingsbury	115%	-67	114%	-61	112%	-54	110%	-44	107%	-33	106%	-25	104%	-17	104%	-20	105%	-20
Regan	125%	-56	132%	-70	136%	-80	140%	-88	138%	-86	134%	-77	134%	-75	134%	-77	135%	-77
Sprague	107%	-31	114%	-60	116%	-70	115%	-63	113%	-58	113%	-57	113%	-54	118%	-77	118%	-77
Tinker	123%	-108	121%	-98	119%	-88	115%	-72	112%	-56	111%	-50	110%	-45	110%	-47	110%	-48
Walsh	89%	54	84%	80	80%	103	81%	96	78%	110	77%	119	75%	125	76%	124	80%	103
Washington	118%	-53	101%	-3	92%	22	92%	22	90%	29	89%	33	95%	14	95%	13	96%	12
Wendell Cross	98%	9	95%	18	95%	19	94%	22	96%	16	94%	22	99%	3	100%	1	105%	-19
Wilson	101%	-6	101%	-6	101%	-5	101%	-5	101%	-6	100%	1	99%	6	99%	4	99%	3
SUB-TOTAL	109%	-583	108%	-522	108%	-524	108%	-493	107%	-449	106%	-368	105%	-345	107%	-419	107%	-470
Carrington	112%	-53	111%	-46	100%	1	91%	38	86%	63	79%	91	77%	101	72%	120	72%	122
Duggan	114%	-56	113%	-52	111%	-47	111%	-46	110%	-40	107%	-29	105%	-18	100%	0	97%	10
Gilmartin	109%	-41	110%	-46	110%	-45	110%	-48	111%	-50	111%	-49	111%	-52	110%	-47	108%	-39
Reed	83%	88	91%	47	97%	17	100%	1	104%	-22	104%	-21	104%	-20	102%	-11	103%	-13
SUB-TOTAL	103%	-63	105%	-96	104%	-74	103%	-54	103%	-50	100%	-9	99%	11	97%	62	96%	80
North End Middle	111%	-100	109%	-86	111%	-104	118%	-167	126%	-241	135%	-325	138%	-349	137%	-338	134%	-316
Wallace Middle	110%	-110	118%	-184	122%	-228	122%	-236	119%	-202	118%	-193	119%	-201	117%	-176	114%	-151
West Side Middle	93%	78	94%	63	96%	44	94%	62	95%	53	95%	56	94%	63	87%	138	84%	178
SUB-TOTAL	104%	-132	107%	-207	109%	-287	111%	-340	113%	-390	115%	-462	116%	-487	112%	-376	109%	-288
TOTAL	107%	-778	107%	-825	108%	-885	108%	-887	108%	-889	107%	-839	107%	-821	107%	-734	106%	-678

Note: Capacities do not include Waterbury Youth Services Readiness program rooms.

ADDITIONAL FACILITIES EVALUATED

As part of the existing conditions evaluation, the following buildings and sites were evaluated at the request of the city, for their general condition, ability to be utilized as a future PK-8 school, and swing-space potential:

- State Street School (St. Lucy’s) PAL
- St. Peter and Paul School
- St. Anne’s
- St. Joseph’s
- St. Margaret’s

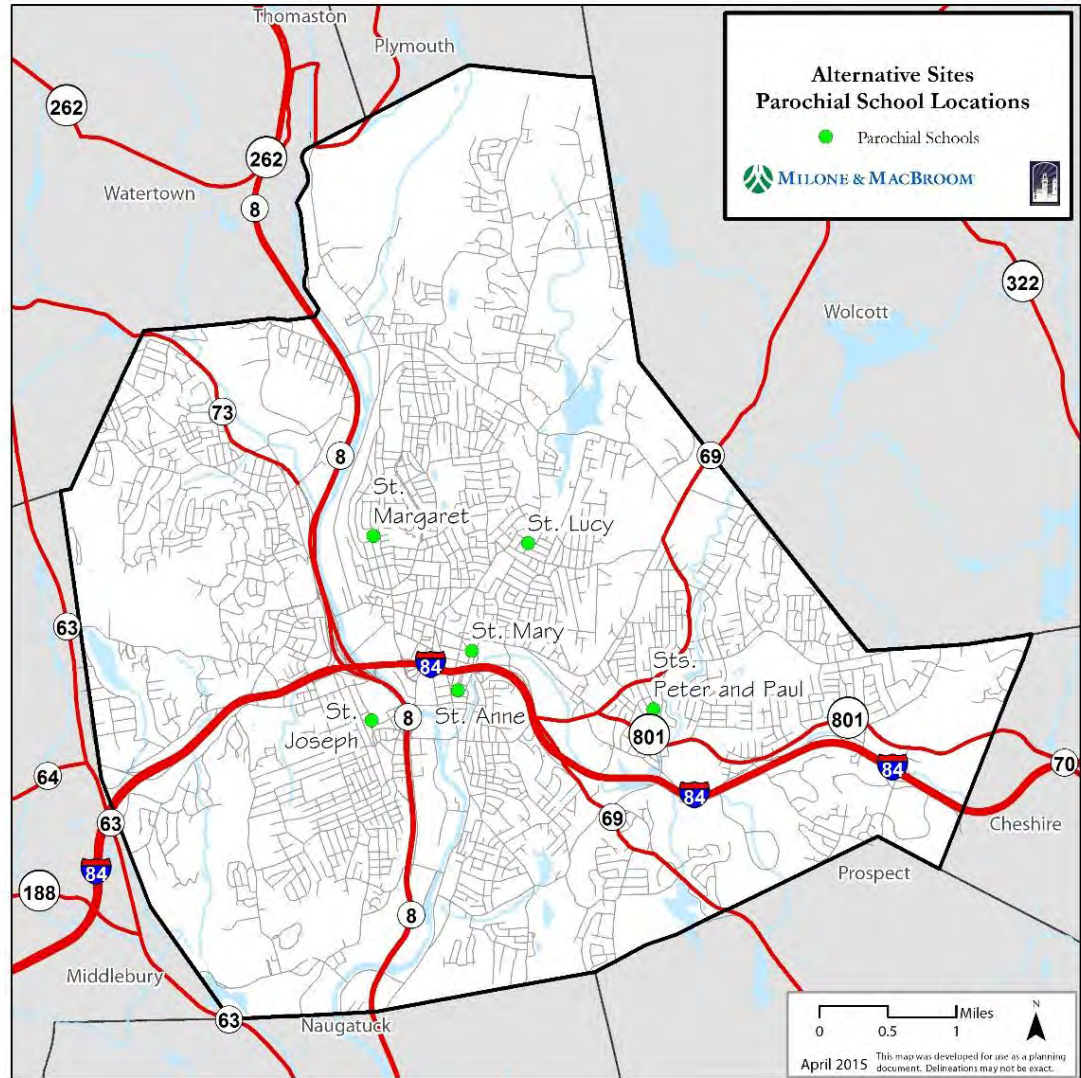
As summarized in the table below, the parochial school facility sites are generally too small to support a PK-8 program at two classrooms per grade level. However, St. Anne’s, St. Joseph’s, St. Margaret’s and St. Mary’s offer potential for alternative education programs as well as swing space.

Table 14 Parochial School Sites

School	Site Characteristics			Building Characteristics					
	Site Size	Parking	Surrounding Neighborhood	Existing Building Use	Building Size	Number of Classrooms	Facilities	Safety + Accessibility	Haz Mat
Sts. Peter and Paul School	4.0 to 5.2 Acres	Small Parking Lot on Site, Shared Parking Likely	Residential	Active Parochial School	2 Stories	16 Full-Size Classrooms	Multi-Purpose Gym/Caf/Aud, Small Kitchen	No Elevator, No Sprinklers, ADA Accessibility	Requires Haz Mat Abatement
St. Anne's School	2.0 Acres	Need for Shared Parking	Residential/ Mixed Use	Inactive	2 Stories 32,000 sq. ft.	15 Full-Size Classrooms, 8 Small Classrooms	Small Kitchen/Servery	No Elevator, No Sprinklers, ADA Accessibility	Likely Requires Haz Mat Abatement
St. Joseph's School	1.5 Acres	Need for Shared Parking	Residential/ Mixed Use	Inactive	3 Stories	12 Modest Sized Classrooms	Small Gym, Cafeteria, Bowling Alley	No Elevator, No Sprinklers, ADA Accessibility	Requires Haz Mat Abatement
St. Mary's School	1.8 Acres	Small Parking Lot on Site, Shared Parking Likely	CBD, Adjacent to Hospital	Active Parochial School	4 Buildings 3 and 4 Stories	No Floor Plan Information Available	No Floor Plan Information Available	No Floor Plan Information Available	
St. Margaret's School	1.5 Acres	Need for Shared Parking	Residential/ Mixed Use	Brass City Charter School	3 and 4 Stories	No Floor Plan Information Available	No Floor Plan Information Available	No Floor Plan Information Available	
State Street School (St. Lucy's)	0.63 Acres	Small Parking Lot on Site, Shared Parking Likely	Residential, Adjacent to Reed School and PAL Rec Center	State Street School/PAL Learning Center	3 Stories 15-18,000 sq. ft.	10 Full-Size Classrooms	Multi-Purpose Gym/Caf/Aud Small Kitchen	Elevator	-

Source: Prepared by SLAM and MMIL 08/2015.

Figure 40 Parochial School Locations



Source: Prepared by MMI. 08/2015.

The St. Peter and Paul property encompasses approximately five acres including the convent and parking area, offering the greatest potential for a future PK-8 school. Well situated in the heart of a predominately residential area, future use of the property as a public school would provide a civic hub for this neighborhood.

Figure 41 Context Map of St. Peter and Paul School



Sources: GoogleMaps and Waterbury Assessor.

The building is comprised of two wings; the older section of the building is a three-story structure housing four classrooms per floor for the first and second floors. The basement level is not suitable for classroom usage without significant renovation. The newer building is a two-story structure also with four classrooms per floor of generous size. Also included in this wing is a multipurpose room (gym, café, and auditorium) with a stage and a small servery. Overall, there are some ADA accessibility and code considerations, including a lack of elevator, restroom accessibility, ADA at several egress points, lack of sprinklers, and likely presence of hazardous materials that may require abatement.

Figure 42 St. Peter and Paul School Floorplan



Source: Prepared by SLAM. 2015.

A more detailed description of the parochial school evaluation can be found in Appendix C.

SECTION 4 – ISSUES AND CHALLENGES

The enrollment and facilities analyses show that the Waterbury Public Schools district is currently overcrowded, and that the overcrowding is not projected to correct itself over the next 8 years. The level of overcrowding is significant enough to detract from current educational programming as programs are housed where possible rather than being strategically located. Furthermore, overcrowding will prevent the city from implementing a true neighborhood school system as envisioned with the construction program that began in the mid-2000s with the new PK-8 schools. This is evident in the placement of new arrivals. As families move into Waterbury, they are not guaranteed placement in their neighborhood school, especially those that are most severely overcrowded. Washington Elementary School is just one of many examples of students not attending their neighborhood school. Of the 635 elementary students that reside within ½ mile of Washington, only 49% attend Washington School.

Redistricting without adding any capacity to the system will not resolve overcrowding – it would only shift the overcrowding around with the vast majority of schools still operating over 100% capacity.


Mitigating districtwide overcrowding, particularly as an enrollment bubble is moving through the system, is difficult. There is no swing space built into the system to facilitate construction programs when the seat deficit is truly citywide. The phasing and timing of new construction and/or renovation is challenging when having to swing the greatest number of students and may not align with the period of greatest need for seats. Finding appropriate swing space for middle school students is challenging due to the particular facility requirements for middle school students. The city has a growing special education and ESL population that requires increasing amounts of space that is difficult to project. The space required for medically fragile students is very different from the space required for an ESL classroom. Finally, many of the city's existing schools are on very tight sites that do not readily lend themselves to expansions, posing challenges in devising a construction program to provide more seats in the system.

The Board of Education, School Administration, city officials, and Consultant Team identified several areas of concern stemming from the facilities utilization analyses. At the direction of the Board of Education, several alternatives were explored to address immediate and long-term concerns with overcrowding. The following summarizes the alternatives, considerations, impacts on overcrowding, potential timeline, and estimates of probable costs.

SECTION 5 – ALTERNATIVES

The logical starting point for the alternatives was to explore one new PK-8 school at two sections per grade located in the East End, a proposal that was shelved in 2014 for further study. A test-fit was conducted using the 2019-2020 school year as a benchmark to gauge the impact at the elementary and middle school levels.

Figure 43 **Projected Seat Deficit 2019-20**

	Projected Seat Deficit 2019-20	<i>With one new 2 section per grade PreK- 8 school</i>	Projected Seat Deficit 2019-20
PK-5	-368		3
PK-8	-9		-9
6-8	-462		-303
	<hr style="width: 100%; border: 0.5px solid black;"/> -839		<hr style="width: 100%; border: 0.5px solid black;"/> -309

Source: Prepared by MMI. 08/2015.

Although a good starting point, the test-fit revealed that there would not be enough initial space gain, and Waterbury Public Schools would continue to shift overcrowding between middle and elementary schools.

OPTION A

Option A calls for the construction of two new PK-8 neighborhood schools and the renovation of Wendell Cross and Kingsbury schools to the PK-8 model. Each new or renovated school would have two sections per grade, resulting in a functional capacity of 477 students (based on 90% utilization), and a maximum capacity of 530 students (based on 100% utilization). The estimated total costs for Option A range from \$176.4 million to \$198.9 million, of which Waterbury would be responsible for \$47.0 million to \$51.9 million.

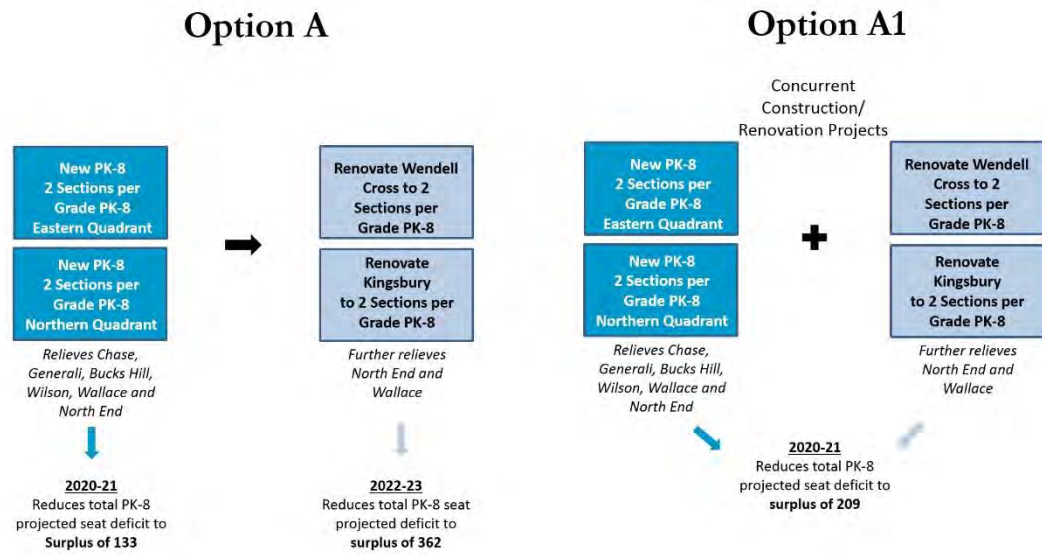
During the initial phase of the project, two new schools would be built in the North and East Quadrants of the city, where overcrowding is most problematic. Suitable locations for new schools will need to be identified. It is anticipated that the new schools would be open in time for the 2020-2021 school year and would reduce the projected deficit of -821 seats to a surplus of 133 seats. The North Quad School would relieve overcrowding at Regan, Sprague, and North End Middle School while the East Quad School would alleviate overcrowding at Generali, Chase, and Wallace Middle School. Following the completion of the two new schools, Wendell Cross School and Kingsbury School would be renovated and expanded to PK-8 neighborhood schools, further relieving overcrowding at the Middle School level. The two renovation projects, which are expected to be completed in time for the 2022-2023 school year, would increase the surplus to 362 seats, the largest of any option. The modest seat surplus at the end of the project horizon could serve as swing space for future school renovations, or support the conversion of additional schools to the neighborhood-based PK-8 model.

In addition to addressing overcrowding, Option A would also provide an opportunity to better align district boundaries in the North and East Ends of the city with existing neighborhoods. Redistricted areas are limited to the new or renovated schools and their adjacent attendance zones. Generally, these redistricted areas better align with existing neighborhoods. For example, students in the Hamilton Park neighborhood are currently split between several schools, including Gilmartin, Hopeville, Chase, Generali, Walsh, and Wendell Cross. The construction of the new East Quad School would allow these students to attend the same neighborhood school.

OPTION A1

Option A1 is identical to Option A, but has all four construction and renovation projects occurring concurrently. Option A1 would result in a 209-seat surplus by the time it is completed in the 2020-2021 school year. While offering a large and timely seat surplus, Option A1 has many challenges, including the simultaneous funding and management of four construction projects. In addition, it will be challenging to identify ample swing space for students during the construction period.

Figure 44 Option A and A1



Notes: Options presented assume the following for both renovation and new construction----

2 sections/grade school = max capacity of 530 at 100% utilization;

3 sections/grade school = max capacity of 795 at 100% utilization.

Source: Prepared by SLAM and MMI. 08/2015.

Table 15 Option A and Option A1 Enrollment Impacts

School	Functional Capacity	Existing Conditions			Option A			Net Change in Students
		Existing Enrollment	Surplus/ Deficit	% Utilized	Proposed Enrollment	Surplus/ Deficit	% Utilized	
Chase	714	816	(102)	114%	694	20	97%	-122
Generali	552	603	(51)	109%	544	8	99%	-59
Gilmartin ¹³	465	506	(41)	109%	453	12	97%	-53
Hopeville	467	475	(8)	102%	466	1	100%	-9
Wendell Cross ²	375	366	9	98%	500	30	94%	134
Kingsbury ²	445	512	(67)	115%	500	30	94%	-12
Sprague	430	461	(31)	107%	397	33	92%	-64
Regan	223	279	(56)	125%	246	(23)	110%	-33
North End MS	916	1,021	(105)	111%	851	65	93%	-170
Wallace MS ³	1,049	1,159	(110)	110%	994	55	95%	-165
North Quad (New) ⁴	530	-	-	-	500	30	94%	500
East Quad (New) ⁴	530	-	-	-	500	30	94%	500

Notes: ¹ Gilmartin School is PK-8, total enrollment includes all grades.

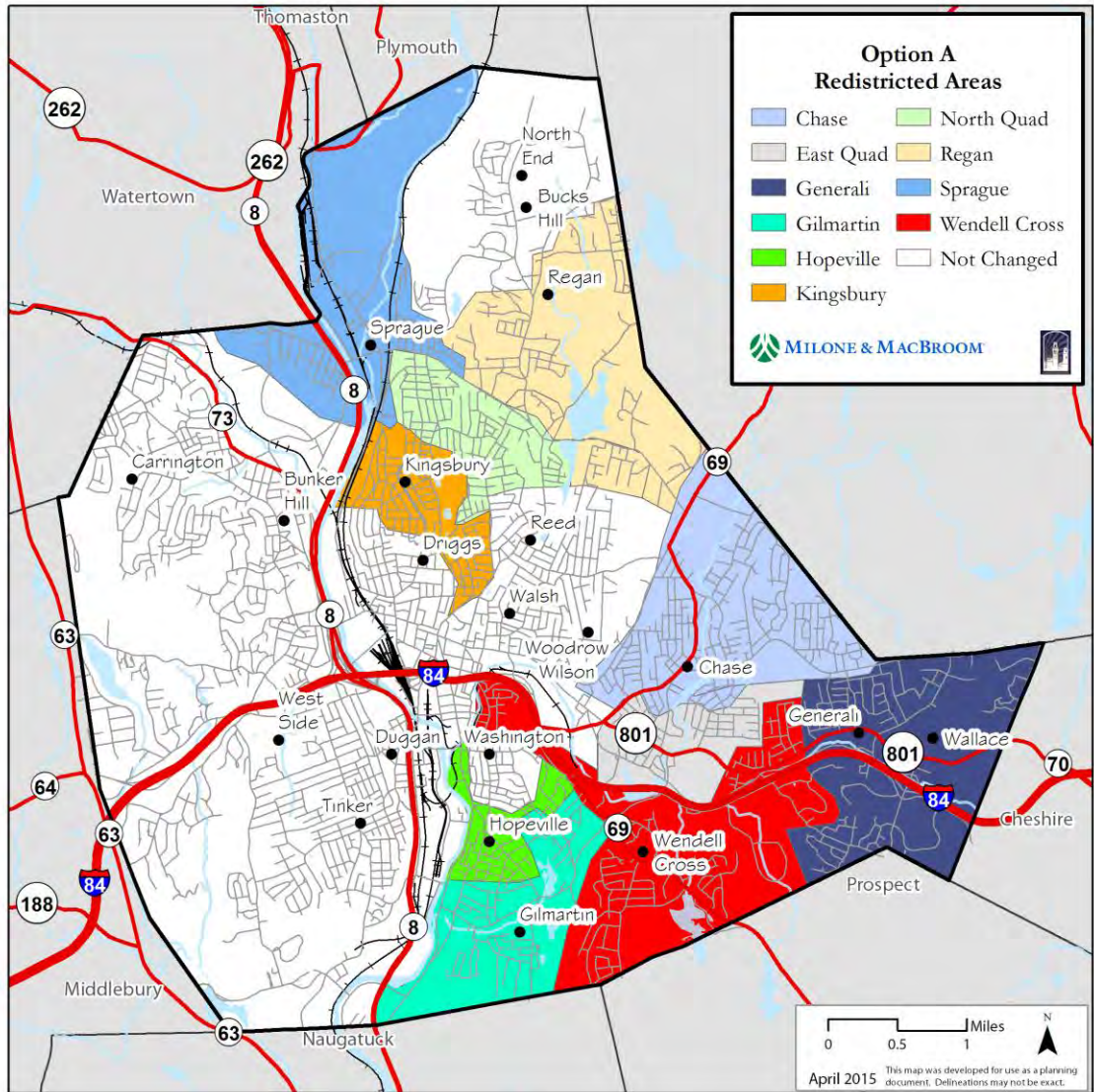
² Wendell Cross and Kingsbury will be converted to PK-8 schools with 2 classes per grade and a maximum capacity of 530 Students at 100% utilization.

³ 36 Grade 6-8 students from Gilmartin were transferred to East Quad. It was assumed that Gilmartin would absorb 36 6-8 students from Wallace.

⁴ North and East Quad schools would be PK-8 schools with 2 sections per grade and a maximum capacity of 530 Students at 100% utilization.

Source: Prepared by SLAM and MMI. 08/2015.

Figure 45 Option A and Option A1 Conceptual Boundaries



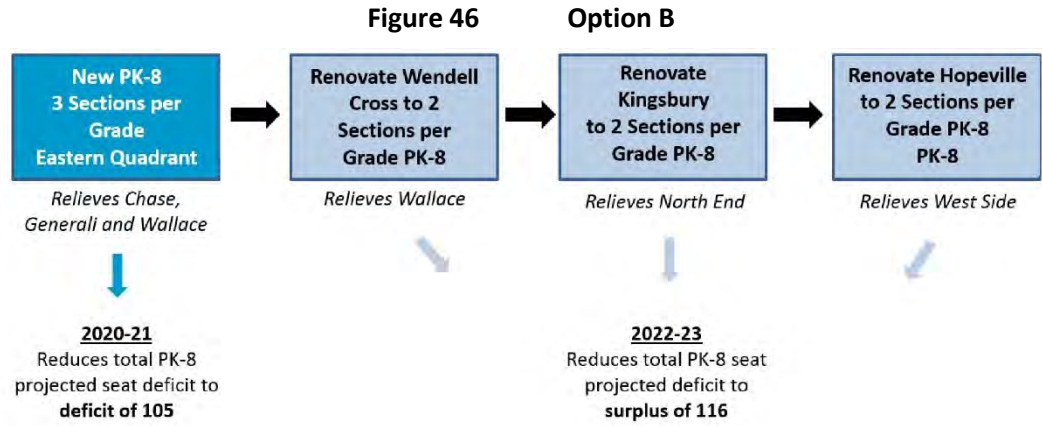
Source: Prepared by MMI. 08/2015.

OPTION B

Option B proposes a new PK-8 neighborhood school in the Eastern Quadrant and the renovation and reconfiguration of Hopeville, Wendell Cross, and Kingsbury schools to the PK-8 model. The new East Quad School would have three sections per grade model, significantly larger than the current two sections per grade model, with a functional capacity of 716 students (based on 90% utilization) and a maximum capacity of 795 students (based on 100% utilization). The renovated schools each would have two sections per grade, resulting in a functional capacity of 477 students (based on 90% utilization) and a maximum capacity of 530 students (based on 100% utilization). The total estimated costs for Option B range from \$191.6 million to \$215.9 million, of which Waterbury would be responsible for \$49.9 million to \$55.3 million.

During the initial phase of the project, a new school would be built in the East Quadrant of the city. While overcrowding would be mitigated at Generali, Chase, and Wallace Middle School, the district would retain an overall seat deficit. The seat deficit would be reduced from -821 seats to -105 seats by the 2020-2021 school year. Following the completion of the East Quad School, Wendell Cross, Hopeville, and Kingsbury schools will be renovated and reconfigured to PK-8. Once the renovation projects are completed, the district would have a surplus of 116 seats by the 2022-2023 school year. However, the surplus would not be distributed evenly across grade cohorts. The reconfiguration of three existing K-5 schools to PK-8 would increase the deficit of K-5 seats and result in a sizable surplus of seats at the middle school level. The surplus of seats could be used as swing space for future renovation projects.

Like Option A, redistricted areas in Option B are somewhat limited to the new or renovated schools and their adjacent attendance zones. The three renovated schools would see their attendance zones shrink in size as a result of their decreased PK-5 capacity, resulting in boundaries that better align with existing neighborhoods. Overcrowding would still remain a problem at many PK-5 schools.



Notes: Options presented assume the following for both renovation and new construction----

2 sections/grade school = max capacity of 530 at 100% utilization;

3 sections/grade school = max capacity of 795 at 100% utilization.

Source: Prepared by SLAM and MMI. 08/2015.

Table 16 Option B Enrollment Impacts

		Existing Conditions			Option B			Net Change in Students
		Existing Enrollment	Surplus/ Deficit	% Utilized	Proposed Enrollment	Surplus/ Deficit	% Utilized	
Chase	714	816	(102)	114%	759	-45	106%	-57
Generali	552	603	(51)	109%	586	(34)	106%	-17
Gilmartin ^{1 5}	465	506	(41)	109%	465	0	100%	-41
Hopeville ²	467	475	(8)	102%	500	30	94%	25
Wendell Cross ²	375	366	9	98%	500	30	94%	134
Kingsbury ²	445	512	(67)	115%	500	30	94%	-12
Reed ^{1 3 5}	517	460	57	89%	517	0	100%	57
Regan	223	279	(56)	125%	272	(49)	122%	-7
Sprague	430	461	(31)	107%	459	(29)	107%	-2
Wallace	1,049	1,159	(110)	110%	930	119	89%	-229
East Quad (New) ⁴	795	-	-	-	786	9	99%	786

Notes: ¹ Gilmartin and Reed Schools are PK-8, total enrollment includes all grades.

² Hopeville, Wendell Cross, and Kingsbury will be renovated to PK-8 schools with 2 class per grade and a max capacity of 530 students at 100% utilization.

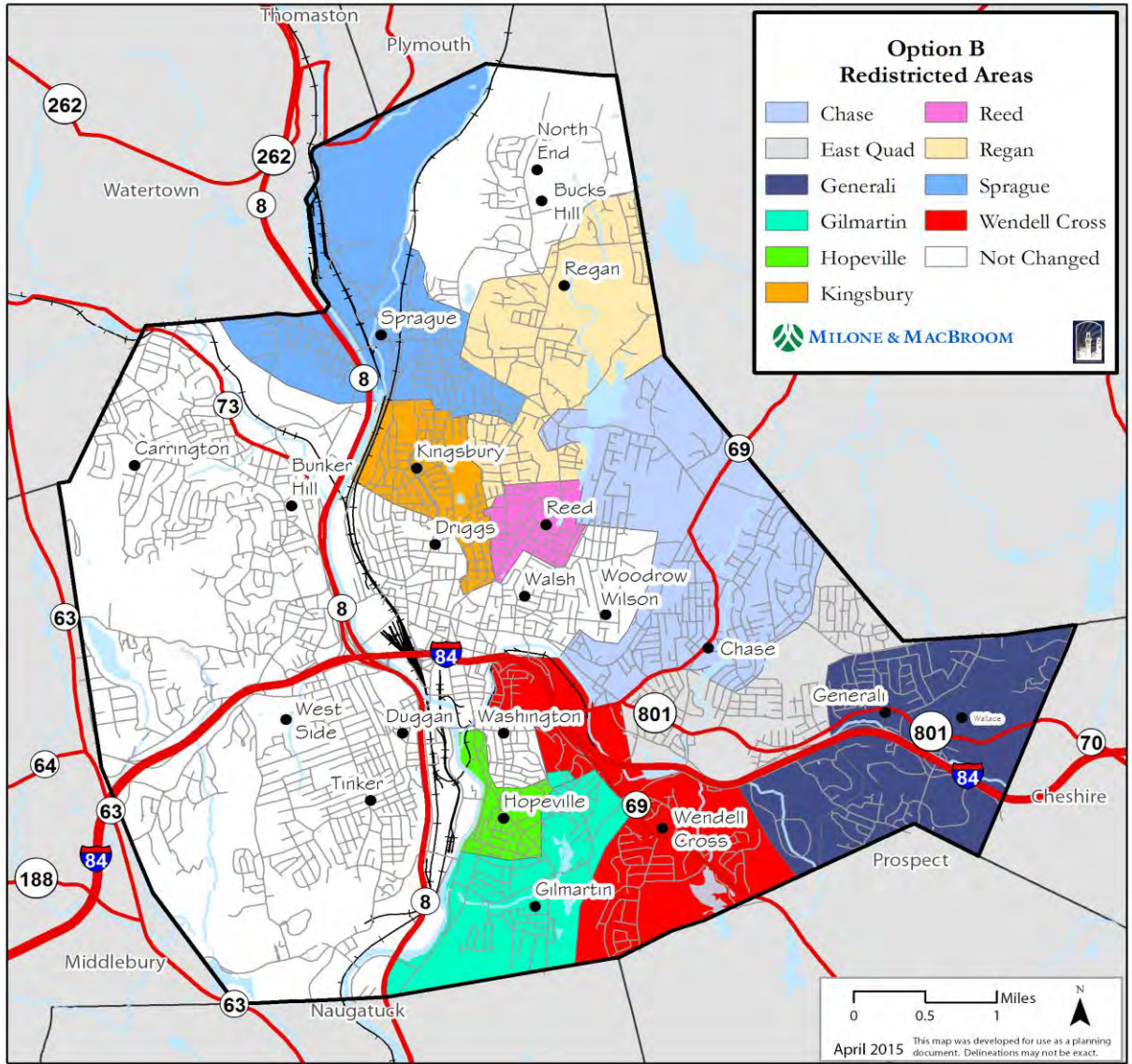
³ Assumed that average 8th grade class size at Reed would increase to 60 students.

⁴ The new East Quad School would have 3 classes per grade and a max capacity of 795 PK-8 student at 100% Utilization.

⁵ Reed and Gilmartin schools added 34 6-8th grade students from redistricted areas (22 to Reed, 12 to Gilmartin).

Source: Prepared by SLAM and MMI. 08/2015.

Figure 47 Option B Conceptual Boundaries



Source: Prepared by MMI. 08/2015.

OPTION C

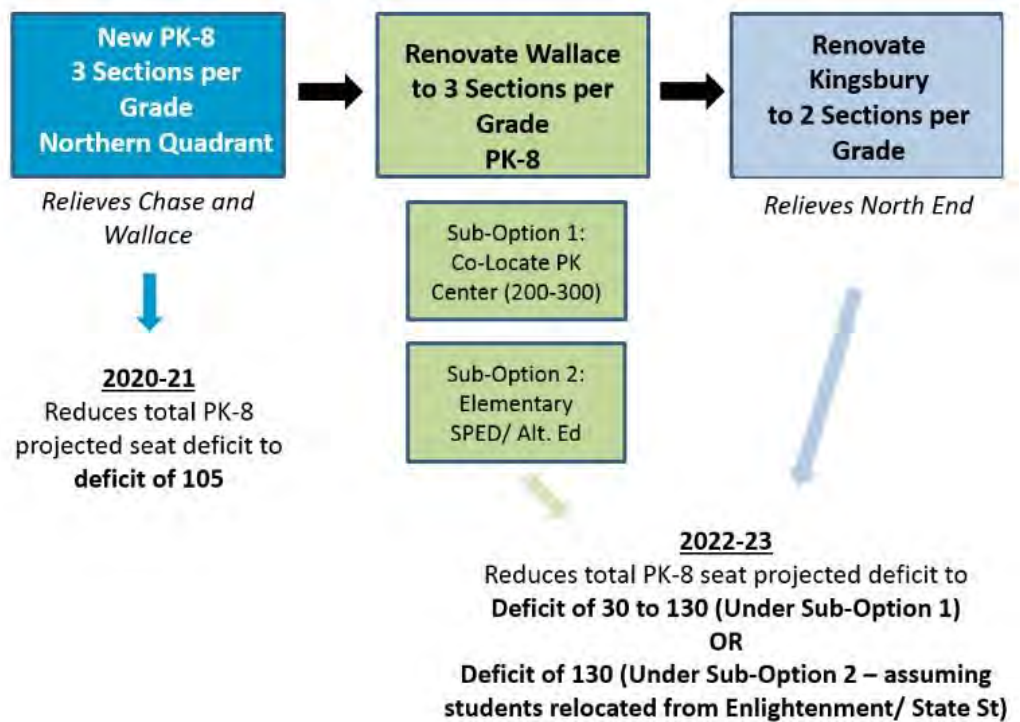
Option C aims to address the overcrowding through only three building projects, one of these projects is the reconfiguration of Wallace Middle School. Option C proposes a new PK-8 neighborhood school in the Northern Quadrant and the renovation and reconfiguration Wallace Middle School and Kingsbury School to the PK-8 model. The new North Quad School and renovated Wallace Middle School would each have three sections per grade, with a functional capacity of 716 students (based on 90% utilization) and a maximum capacity of 795 students (based on 100% utilization). The renovated Kingsbury School would have two sections per grade, with a functional capacity of 477 students (based on 90% utilization) and a maximum capacity of 530 students (based on 100% utilization). The total estimated costs for Option C range from \$174.3 million to \$196.4 million, making it the least expensive option. Waterbury would be responsible for \$46.2 million to \$51.2 million of the total project cost.

During the initial phase of the project, a new school would be built in the Northern Quadrant of the city, relieving overcrowding at Bucks Hill, Regan, Sprague, Wilson, Walsh, and North End Middle School. The seat deficit would be reduced from -821 seats to -105 seats by the 2020-2021 school year. However, the middle school deficit would be exacerbated by the conversion of Wallace into a PK-8 school, which would result the loss of approximately 900 middle school seats at the same time that the enrollment bubble is entering the middle school grades. While North Quad and Kingsbury would regain some of the seats lost, 377 Wallace students would remain displaced and would need to be placed in already overcrowded middle schools. The loss of middle school seats would require Phase II to lead with the conversion of Generali, Chase, and Wendell Cross to PK-8. In addition to the traditional PK-8 classroom space, Wallace could also house a 200- to 300-student Pre-Kindergarten Center, or a 200-student Elementary Special Education/Alternative Education Center. Following the completion of Phase I construction projects, the enrollment deficit is projected to be -30 to -130, depending on the size of the additional programming space at Wallace. The seat deficit would be unequally distributed between grade cohorts with elementary school grades (PK-5) experiencing a large surplus and middle school grades (6-8) facing a large deficit.

Due to the large number of new PK-5 seats added to the northern and eastern portions of the city, Option C has a larger redistricting footprint than Options A and B. All but three elementary schools (Duggan, Bunker Hill, and Carrington) would be redistricted under Option B. Outplacement of students would be greatly reduced, and the proposed boundaries would better align with existing neighborhoods. For example, the proposed North Quad School would allow all Berkeley Heights students (who are currently split between three schools) to attend the same neighborhood school.

Due to the projected enrollment increase at the middle schools aligning with the timing of the proposed reconfiguration of Wallace to a PK-8, this option reduces available 6-8 grade seats when they are most needed. Overall, Option C proves to be very challenging and not a tremendous fit at this point in time. However, the conversion of Wallace to a three sections per grade PK-8 with additional space for alternative education programming and/or early learning has merits as the city moves forward globally with the PK-8 neighborhood model. The Wallace component of Option C would likely be a better fit in latter phases of the PK-8 reconfiguration.

Figure 48 Option C



Notes: Options presented assume the following for both renovation and new construction----

2 sections/grade school = max capacity of 530 at 100% utilization;

3 sections/grade school = max capacity of 795 at 100% utilization.

Source: Prepared by SLAM and MMI. 08/2015.

Table 17 Option C Enrollment Impacts

School	Functional Capacity	Existing Conditions			Option C			Net Change
		Existing Enrollment	Surplus/ Deficit	% Utilized	Proposed Enrollment	Surplus/ Deficit	% Utilized	
Bucks Hill	545	561	(16)	103%	534	11	98%	-27
Chase	714	816	(102)	114%	688	26	96%	-128
Driggs	446	528	(82)	118%	434	12	97%	-94
Generali	552	603	(51)	109%	529	23	96%	-74
Gilmartin ^{1 3 5}	465	506	(41)	109%	465	0	100%	-41
Kingsbury ²	445	512	(67)	115%	500	30	94%	-12
Hopeville	426	467	(41)	110%	380	46	89%	-87
Regan	223	279	(56)	125%	209	14	94%	-70
Reed ^{1 3 5 6}	517	460	57	89%	516	1	100%	56
Sprague	430	461	(31)	107%	368	62	86%	-93
Tinker	464	572	(108)	123%	452	12	97%	-120
Wallace ^{1 3 4}	1,049	1,159	(110)	110%	786	9	99%	-373
Walsh	509	455	54	89%	449	60	88%	-6
Washington	287	340	(53)	118%	275	12	96%	-65
Wendell Cross	375	366	9	98%	350	25	93%	-16
West Side MS	1,099	1,021	78	93%	962	137	88%	-59
Wilson	440	445	(5)	101%	450	(10)	102%	5
North Quad (New) ⁴	795	0	-	-	786	9	99%	786

Notes: ¹ Gilmartin, Wallace, and Reed Schools are PK-8. Total enrollment includes all grades.

² Kingsbury will be renovated to a PK-8 school with 2 classes per grade and a max capacity of 530 students at 100% utilization.

³ Results in 377 6-8 students from Wallace who need to be placed in another school.

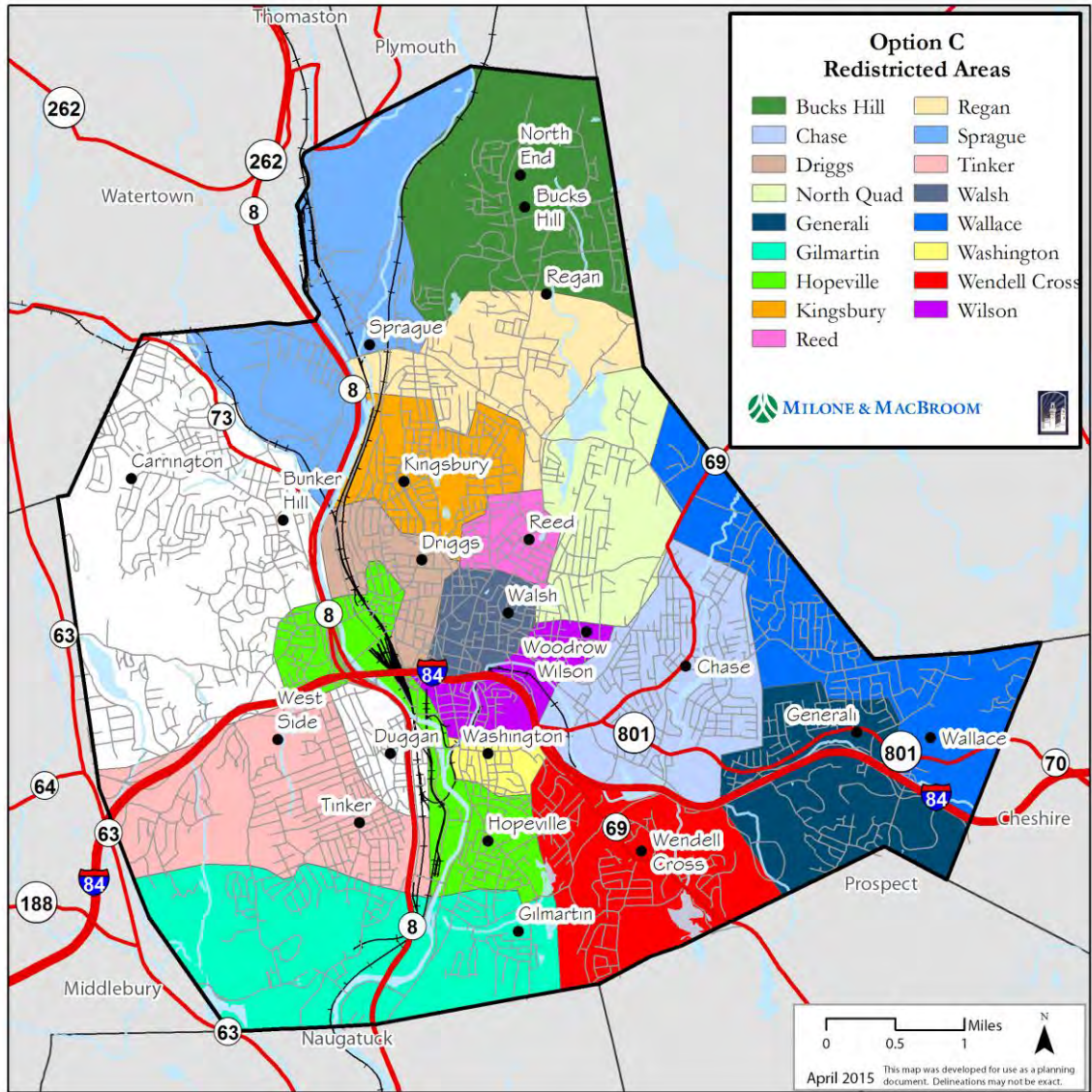
⁴ North Quad and Wallace would be PK-8 with 3 classes per grade and a max capacity of 795 students at 100% utilization.

⁵ Grade 6-8 enrollment at Gilmartin and Reed was estimated at 50% of the K-5 enrollment.

⁶ Assumed that average 8th grade class at Reed would increase to 60 students.

Source: Prepared by SLAM and MMI. 08/2015.

Figure 49 Option C Conceptual Boundaries



Source: Prepared by MMI. 08/2015.

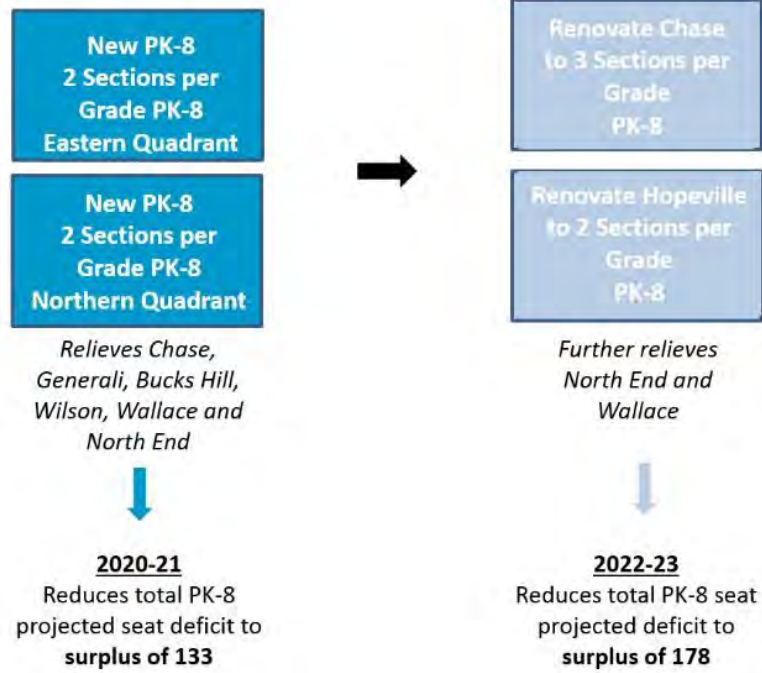
OPTION D

Option D calls for the construction of two new PK-8 neighborhood schools and the renovation of Chase and Hopeville schools to the PK-8 model. The two new schools and renovated Hopeville School would be a two sections per grade model, resulting in a functional capacity of 477 students (based on 90% utilization) and a maximum capacity of 530 students (based on 100% utilization). Chase would have three sections per grade, resulting in a functional capacity of 716 students (based on 90% utilization) and a maximum capacity of 795 students (based on 100% utilization). The estimated total costs for Option D range from \$194.1 million to \$218.7 million, making it the most expensive option. Waterbury would be responsible for \$53.0 million to \$58.7 million of the total project cost.

During the initial phase of the project, two new schools would be built in the North and East Quadrants of the city where overcrowding is most problematic. Suitable locations still need to be identified. It is anticipated that the new schools would be open in time for the 2020-2021 school year and would reduce the projected deficit of -821 seats to a surplus of 133 seats. The North Quad School would relieve overcrowding at Regan, Sprague, and North End Middle School, while the East Quad School would alleviate overcrowding at Generali, Chase, and Wallace Middle School. Following the completion of the two new schools, Chase and Hopeville schools would be renovated and expanded to PK-8 neighborhood schools, further relieving overcrowding at the Middle School level. The two renovation projects, which are expected to be completed in time for the 2022-2023 school year, would increase the surplus to 178 seats. Middle school grades (6-8) would have a sizable surplus, while elementary schools would have a deficit.

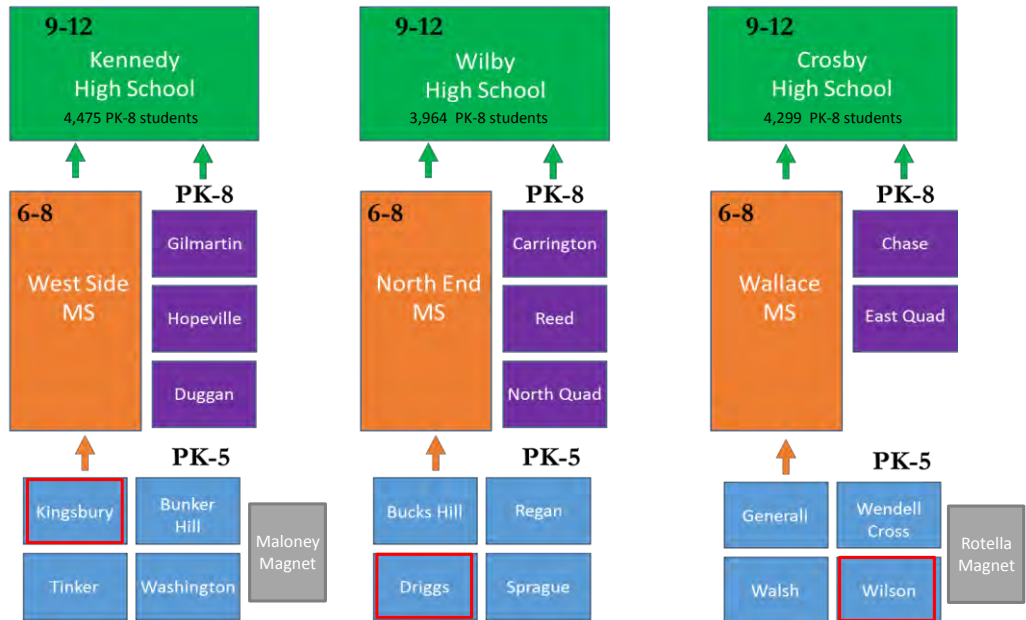
Option D concentrates all additional capacity in a relatively small geographic area in the central and eastern portion of the city. As a result, all elementary school districts would need to be redistricted. The added capacity would eliminate outplaced students and would support a neighborhood-based school system citywide. While overcrowding would remain at the PK-5 level, the middle schools would see a sizable seat surplus. The seat surplus at the end of the project horizon would facilitate additional construction projects by serving as swing space. Additionally, strong consideration will need to be given to the realignment of the current school feeder system. A proposed feeder realignment has been provided in Figure 51 below.

Figure 50 Option D



Notes: Options presented assume the following for both renovation and new construction----
 2 sections/grade school = max capacity of 530 at 100% utilization;
 3 sections/grade school = max capacity of 795 at 100% utilization.
 Source: Prepared by SLAM and MMI. 08/2015.

Figure 51 Option D Proposed Feeder System



* Kingsbury, Driggs, and Wilson were realigned from existing feeder structure

Source: Prepared by SLAM and MMI. 08/2015.

Table 18 Option D Enrollment Impacts (PK-5 and PK-8 Schools)

School	Functional Capacity	Existing Conditions			Option D			Net Change
		Existing Enrollment	Surplus/ Deficit	% Utilized	Proposed Enrollment	Surplus/ Deficit	% Utilized	
Bucks Hill	545	561	(16)	103%	570	(25)	105%	9
Bunker Hill	446	510	(64)	114%	461	(15)	103%	-49
Carrington ^{2,4}	525	537	(12)	102%	500	25	95%	-37
Chase ^{1,3}	714	816	(102)	114%	786	9	99%	-30
Driggs	446	528	(82)	118%	460	(14)	103%	-68
Duggan ²	408	464	(56)	114%	418	(10)	102%	-46
East Quad ¹	530	0	-	-	500	30	94%	500
Generali	552	603	(51)	109%	548	4	99%	-55
Gilmartin ²	465	506	(41)	109%	505	(40)	109%	-1
Hopeville ^{1,3}	467	475	(8)	102%	500	30	94%	25
Kingsbury	445	512	(67)	115%	500	(55)	112%	-12
North Quad ¹	530	0	-	-	500	30	94%	500
Reed ²	517	427	90	83%	494	23	96%	67
Regan	223	279	(56)	125%	219	4	98%	-60
Sprague	430	461	(31)	107%	444	(14)	103%	-17
Tinker	464	572	(108)	123%	545	(81)	117%	-27
Walsh	509	455	54	89%	528	(19)	104%	73
Washington	287	340	(53)	118%	304	(17)	106%	-36
Wendell Cross	375	366	9	98%	384	(9)	102%	18
Wilson	440	445	(5)	101%	467	(27)	106%	22

Notes: ¹ New PK-8 school. Total enrollment includes PK and 6-8 enrollment.

² Existing PK-8 school. Total enrollment includes PK and 6-8 enrollment.

³ Chase School's max capacity will expand to 795 at 100% utilization and Hopeville's max capacity will expand to 530 at 100% utilization.

⁴ Carrington enrollments and functional capacity include an estimated 50 8th grade students.

Source: Prepared by SLAM and MMI. 08/2015.

Table 19 Option D Enrollment Impacts (Middle Schools)

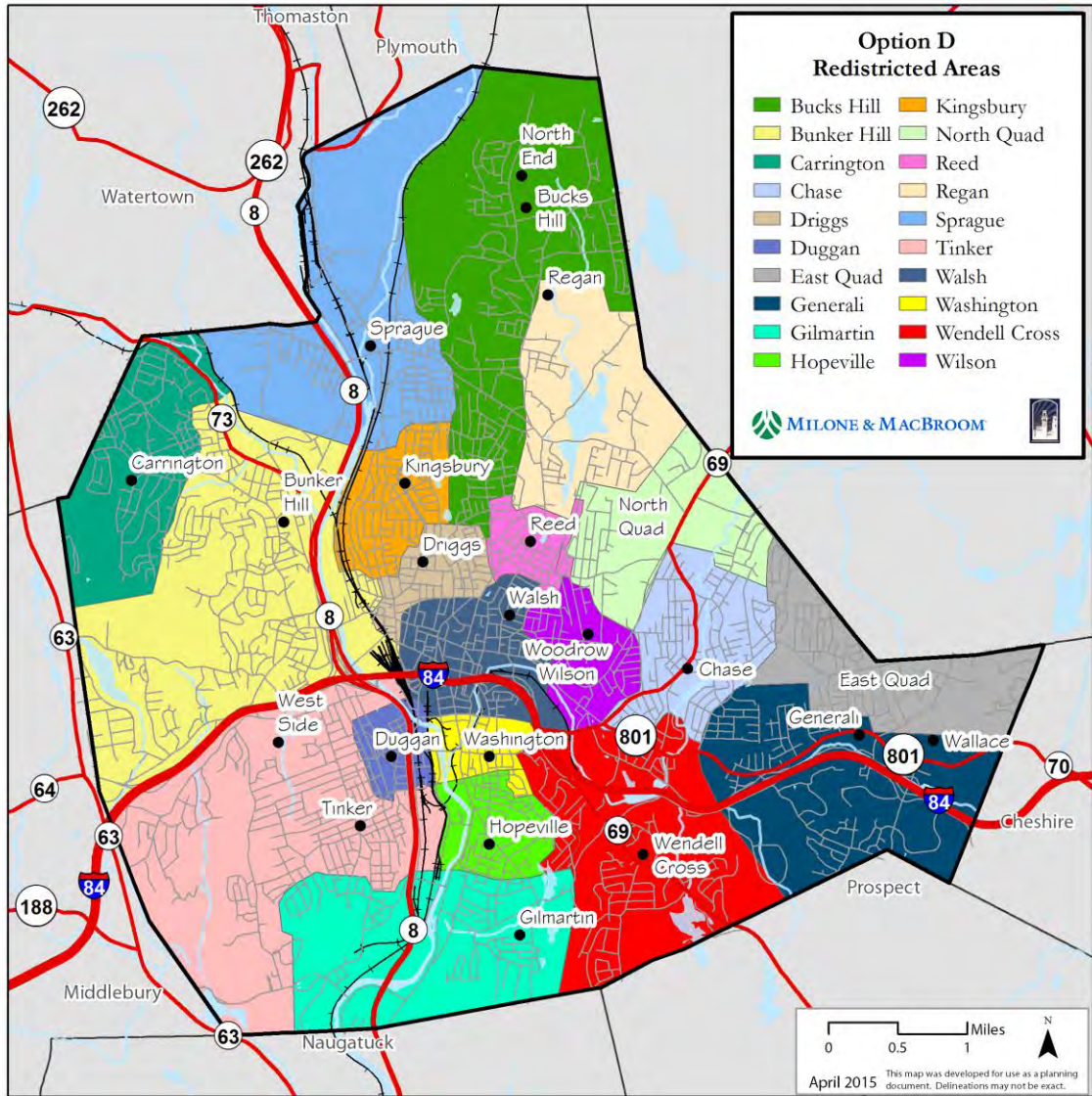
School	Functional Capacity	Existing Conditions			Option D			Net Change
		Existing Enrollment	Surplus/ Deficit	% Utilized	Proposed Enrollment	Surplus/ Deficit	% Utilized	
North End Middle	916	1,016	(100)	111%	777	139	85%	-239
Wallace Middle	1,049	1,159	(110)	110%	834	215	80%	-325
West Side	1,099	1,021	78	93%	845	254	77%	-176

Note: Assumes existing 6-8 deployment at Waterbury Arts Magnet School, State Street School, and Enlightenment School.

Source: Prepared by SLAM and MMI. 08/2015.

A summary of considerations for each of the options is provided in the following. Provided in Appendix D are the detailed estimates of probable cost as well as potential timeline.

Figure 52 Option D Conceptual Boundaries



Source: Prepared by MMI. 08/2015.

RECOMMENDATIONS

Following review and discussion of these alternatives with the Board of Aldermen, Board of Education, and City and Schools' Administrations, the Consultant Team recommends Options A or A1. This option and its variant, which differs only in its implementation schedule, offers the greatest impact in terms of new seats created for the least investment. In addition, this option creates seats where they are most needed first – in the eastern and northern quadrants of the City. Adding this amount of space to the system will allow Waterbury Public Schools to redistrict its elementary schools in order to alleviate overcrowding throughout the City, ensure ample room in facilities that experience the greatest fluctuations during the course of the school year, and help to ensure adequate programming space is available. Moreover, the seats resulting from the creation of four new PK-8 facilities – two new buildings and two renovated buildings – will also enable the District to continue to pursue a conversion to PK-8 system-wide beyond this phase of construction activity. The most significant challenge to this option, aside from the capital investment required is finding two new school sites. However, should an appropriate parochial school become available, there may be an opportunity to attain one of the two necessary sites for additional buildings.

APPENDIX A – WATERBURY PUBLIC SCHOOL PROJECTIONS

Public School Facility Utilization & Redistricting Study

Oct. 1, 2014 Waterbury Public Schools Enrollment										
	K	1	2	3	4	5	6	7	8 Total	
K-5s										
Bucks Hill	123	105	93	85	65	75	0	0	0	546
Bunker Hill	101	88	73	78	73	84	0	0	0	497
Chase	135	135	147	121	138	140	0	0	0	816
Driggs	100	101	87	78	68	81	0	0	0	515
Generali	113	114	99	93	77	107	0	0	0	603
Hopeville	98	79	84	88	54	72	0	0	0	475
Kingsbury	82	89	84	92	81	84	0	0	0	512
Regan	39	46	49	44	51	50	0	0	0	279
Sprague	91	75	75	72	64	52	0	0	0	429
Tinker	93	89	102	101	98	89	0	0	0	572
Walsh	69	73	80	71	79	71	0	0	0	443
Washington	60	54	61	50	47	55	0	0	0	327
Wendell Cross	73	71	51	50	49	56	0	0	0	350
Wilson	98	78	54	50	57	54	0	0	0	391
K-8s										
Carrington	54	48	70	47	77	55	51	53	0	455
Duggan	45	48	53	50	55	56	43	41	41	432
Gilmartin	60	49	47	46	55	55	56	53	50	471
Reed	51	46	49	50	59	42	47	32	26	402
Middles										
North End Middle	0	0	0	0	0	412	339	323	354	1,016
Wallace Middle	0	0	0	0	0	374	412	382	365	1,159
West Side Middle	0	0	0	0	0	492	345	324	352	1,021
TOTAL:	1,485	1,388	1,358	1,266	1,247	2,556	1,293	1,208	1,188	11,711

2015-16 Waterbury Public Schools Enrollment Projections										
	K	1	2	3	4	5	6	7	8 Total	
K-5s										
Bucks Hill	120	103	110	106	80	78				598
Bunker Hill	90	92	71	74	80	86				494
Chase	122	135	148	142	127	151				826
Driggs	94	92	82	74	78	72				491
Generali	106	104	105	98	83	80				576
Hopeville	87	85	81	80	77	54				464
Kingsbury	72	91	80	96	84	82				505
Regan	37	42	53	53	53	56				294
Sprague	86	79	69	73	78	74				458
Tinker	85	91	89	106	101	90				563
Walsh	60	73	72	77	67	68				416
Washington	54	52	50	39	45	36				277
Wendell Cross	69	68	62	44	51	48				341
Wilson	88	78	58	53	56	58				391
K-8s										
Carrington	48	48	41	63	47	62	48	45	47	448
Duggan	41	41	50	58	54	57	51	39	38	428
Gilmartin	56	45	56	49	48	56	62	51	53	476
Reed	43	55	46	52	57	60	45	50	34	442
Middles										
North End Middle							336	331	334	1,002
Wallace Middle							448	413	371	1,233
West Side Middle							353	352	331	1,036
TOTAL:	1,359	1,373	1,324	1,336	1,265	1,268	1,343	1,281	1,209	11,758

Public School Facility Utilization & Redistricting Study

2016-17 Waterbury Public Schools Enrollment Projections										
	K	1	2	3	4	5	6	7	8 Total	
K-5s										
Bucks Hill	122	101	108	125	100	96				652
Bunker Hill	92	83	75	72	76	93				491
Chase	124	123	148	142	148	138				824
Driggs	96	87	75	69	73	81				481
Generali	108	98	96	104	87	85				577
Hopeville	89	75	87	77	70	76				474
Kingsbury	74	80	82	91	87	84				498
Regan	38	40	48	56	63	57				303
Sprague	87	75	73	67	79	89				468
Tinker	87	83	91	93	106	92				552
Walsh	61	63	72	69	72	57				394
Washington	55	47	48	32	36	34				252
Wendell Cross	70	64	59	53	45	49				340
Wilson	90	70	58	57	59	56				390
K-8s										
Carrington	49	42	40	37	63	37	51	42	39	400
Duggan	42	37	42	54	62	56	49	45	36	423
Gilmartin	57	42	51	58	51	49	60	56	51	475
Reed	44	47	55	49	58	57	62	48	53	473
Middles										
North End Middle							349	329	342	1,020
Wallace Middle							426	449	401	1,277
West Side Middle							336	360	359	1,055
TOTAL:	1,384	1,256	1,309	1,303	1,335	1,287	1,332	1,330	1,282	11,819

2017-18 Waterbury Public Schools Enrollment Projections										
	K	1	2	3	4	5	6	7	8 Total	
K-5s										
Bucks Hill	119	103	106	123	118	119				687
Bunker Hill	90	84	67	76	74	88				479
Chase	121	125	134	142	149	161				832
Driggs	94	88	70	63	69	76				460
Generali	105	100	90	95	92	89				570
Hopeville	87	77	78	82	67	69				459
Kingsbury	72	82	73	93	83	87				489
Regan	37	41	46	52	67	68				311
Sprague	85	76	68	70	72	89				461
Tinker	85	85	84	94	93	96				536
Walsh	59	64	62	69	64	62				380
Washington	54	48	44	31	29	27				232
Wendell Cross	69	65	56	51	54	43				337
Wilson	88	71	52	56	63	59				390
K-8s										
Carrington	48	43	36	36	36	50	33	45	37	364
Duggan	41	38	38	45	58	64	52	44	42	422
Gilmartin	56	42	48	53	61	52	56	55	56	478
Reed	43	47	47	58	55	59	63	65	51	489
Middles										
North End Middle							402	341	340	1,083
Wallace Middle							420	428	437	1,285
West Side Middle							326	343	368	1,037
TOTAL:	1,352	1,280	1,198	1,288	1,302	1,358	1,352	1,320	1,331	11,780

Public School Facility Utilization & Redistricting Study

2018-19 Waterbury Public Schools Enrollment Projections										
	K	1	2	3	4	5	6	7	8 Total	
K-5s										
Bucks Hill	125	100	108	120	116	139				707
Bunker Hill	94	82	68	68	77	85				474
Chase	127	122	137	128	149	159				823
Driggs	98	86	72	59	62	71				448
Generali	110	97	92	89	84	93				565
Hopeville	91	75	79	73	72	65				455
Kingsbury	75	80	74	82	85	82				478
Regan	39	40	47	49	62	73				309
Sprague	89	74	70	66	76	81				456
Tinker	89	83	85	86	94	83				520
Walsh	62	63	63	59	64	54				366
Washington	56	47	44	28	28	22				225
Wendell Cross	72	64	57	48	51	51				343
Wilson	92	70	53	51	63	63				391
K-8s										
Carrington	50	42	37	32	36	28	45	29	39	339
Duggan	43	37	39	41	49	59	61	46	41	416
Gilmartin	58	41	49	49	55	61	61	51	55	480
Reed	45	46	48	49	65	55	67	67	69	512
Middles										
North End Middle							413	392	352	1,157
Wallace Middle							415	421	415	1,251
West Side Middle							364	333	349	1,046
TOTAL:	1,416	1,250	1,220	1,179	1,287	1,324	1,427	1,339	1,321	11,762

2019-20 Waterbury Public Schools Enrollment Projections										
	K	1	2	3	4	5	6	7	8 Total	
K-5s										
Bucks Hill	120	105	105	122	113	137				701
Bunker Hill	90	86	67	69	69	89				470
Chase	122	128	134	131	135	160				809
Driggs	94	90	70	60	59	64				438
Generali	106	102	90	90	79	85				551
Hopeville	87	79	77	74	64	70				451
Kingsbury	72	84	72	84	75	84				470
Regan	37	42	46	50	59	66				300
Sprague	86	78	68	67	71	85				455
Tinker	85	87	83	88	86	84				514
Walsh	60	66	62	61	56	54				357
Washington	54	49	43	29	25	21				221
Wendell Cross	69	67	56	49	48	49				338
Wilson	88	73	52	52	56	63				384
K-8s										
Carrington	48	44	36	33	32	28	25	40	25	311
Duggan	41	38	38	42	44	50	54	55	43	405
Gilmartin	56	43	47	50	52	55	68	56	51	479
Reed	43	49	47	50	55	66	60	71	71	511
Middles										
North End Middle							433	404	404	1,241
Wallace Middle							418	416	408	1,242
West Side Middle							333	371	339	1,043
TOTAL:	1,360	1,309	1,192	1,201	1,178	1,309	1,391	1,413	1,340	11,692

Public School Facility Utilization & Redistricting Study

2020-21 Waterbury Public Schools Enrollment Projections										
	K	1	2	3	4	5	6	7	8 Total	
K-5s										
Bucks Hill	123	101	110	119	115	133			700	
Bunker Hill	93	83	70	67	70	79			462	
Chase	125	123	140	128	137	144			797	
Driggs	97	87	73	59	60	60			436	
Generali	108	98	94	88	80	79			548	
Hopeville	89	75	81	73	65	62			445	
Kingsbury	74	81	76	82	76	74			461	
Regan	38	40	48	49	60	63			298	
Sprague	88	75	71	66	73	80			452	
Tinker	87	83	87	86	88	77			509	
Walsh	61	63	64	59	57	47			351	
Washington	55	47	45	28	26	19			220	
Wendell Cross	71	64	58	48	49	46			336	
Wilson	90	70	54	51	57	56			379	
K-8s										
Carrington	49	43	38	32	33	25	25	22	35	300
Duggan	42	37	40	41	45	45	45	48	51	394
Gilmartin	57	42	50	49	53	52	62	63	56	482
Reed	44	47	49	49	56	55	71	63	75	510
Middles										
North End Middle							426	423	416	1,265
Wallace Middle							428	419	403	1,250
West Side Middle							318	340	378	1,036
TOTAL:	1,392	1,257	1,248	1,172	1,200	1,198	1,375	1,378	1,414	11,634

2021-22 Waterbury Public Schools Enrollment Projections										
	K	1	2	3	4	5	6	7	8 Total	
K-5s										
Bucks Hill	124	103	106	125	112	135			705	
Bunker Hill	93	85	67	71	69	81			465	
Chase	126	126	134	134	134	147			801	
Driggs	97	89	71	62	58	62			438	
Generali	109	100	90	92	78	81			551	
Hopeville	90	77	78	76	63	63			448	
Kingsbury	75	82	73	86	74	75			464	
Regan	38	41	46	51	58	64			300	
Sprague	88	76	68	69	71	82			455	
Tinker	88	85	84	90	86	79			512	
Walsh	61	65	62	62	55	48			353	
Washington	56	48	44	29	25	19			221	
Wendell Cross	71	66	56	50	48	47			338	
Wilson	91	72	52	53	56	57			381	
K-8s										
Carrington	50	44	36	34	32	26	21	22	19	282
Duggan	42	38	38	43	44	46	39	41	45	376
Gilmartin	58	43	48	51	51	52	55	57	62	477
Reed	45	48	47	51	55	56	57	75	67	501
Middles										
North End Middle							404	415	436	1,254
Wallace Middle							391	429	405	1,225
West Side Middle							291	325	345	961
TOTAL:	1,402	1,287	1,199	1,228	1,172	1,220	1,258	1,362	1,379	11,507

Public School Facility Utilization & Redistricting Study

2022-23 Waterbury Public Schools Enrollment Projections										
	K	1	2	3	4	5	6	7	8 Total	
K-5s										
Bucks Hill	123	104	108	120	117	132				705
Bunker Hill	93	85	69	68	72	79				466
Chase	126	127	138	129	140	143				802
Driggs	97	90	72	59	61	60				439
Generali	109	101	92	89	82	79				552
Hopeville	90	78	79	73	66	62				448
Kingsbury	74	83	74	82	78	73				465
Regan	38	41	47	49	61	63				300
Sprague	88	77	70	66	74	80				455
Tinker	88	86	86	86	90	77				513
Walsh	61	65	63	60	58	47				354
Washington	56	49	45	28	26	19				222
Wendell Cross	71	66	57	48	50	46				339
Wilson	91	72	53	51	59	56				382
K-8s										
Carrington	50	44	37	32	33	25	22	18	19	280
Duggan	42	38	39	41	46	45	42	35	37	366
Gilmartin	57	43	49	49	54	51	58	50	57	469
Reed	44	48	48	49	58	55	61	60	79	503
Middles										
North End Middle							411	394	427	1,232
Wallace Middle							394	391	414	1,200
West Side Middle							294	297	330	921
TOTAL:	1,399	1,296	1,227	1,179	1,227	1,191	1,282	1,246	1,363	11,411

2023-24 Waterbury Public Schools Enrollment Projections										
	K	1	2	3	4	5	6	7	8 Total	
K-5s										
Bucks Hill	124	104	109	122	113	138	0	0	0	711
Bunker Hill	94	85	69	69	69	83	0	0	0	469
Chase	127	126	139	132	135	150	0	0	0	808
Driggs	98	89	73	61	59	63	0	0	0	442
Generali	110	101	93	91	79	83	0	0	0	555
Hopeville	90	78	80	75	64	65	0	0	0	451
Kingsbury	75	83	75	84	75	77	0	0	0	468
Regan	39	41	48	50	59	66	0	0	0	303
Sprague	89	77	71	68	71	83	0	0	0	459
Tinker	88	86	86	89	87	81	0	0	0	516
Walsh	62	65	64	61	56	49	0	0	0	356
Washington	56	49	45	29	25	20	0	0	0	223
Wendell Cross	71	66	58	49	48	48	0	0	0	341
Wilson	91	72	54	52	56	59	0	0	0	384
K-8s										
Carrington	50	44	37	33	32	26	23	19	16	280
Duggan	42	38	39	42	45	47	43	37	32	366
Gilmartin	58	43	49	50	52	54	61	53	50	470
Reed	45	48	48	50	55	58	63	64	64	496
Middles										
North End Middle							397	401	405	1,203
Wallace Middle							381	395	378	1,154
West Side Middle							284	300	302	886
TOTAL:	1,408	1,293	1,236	1,207	1,178	1,248	1,252	1,270	1,247	11,340

Public School Facility Utilization & Redistricting Study

2024-25 Waterbury Public Schools Enrollment Projections										
	K	1	2	3	4	5	6	7	8	Total
K-5s										
Bucks Hill	124	105	109	123	116	133	0	0	0	710
Bunker Hill	94	86	69	70	71	79	0	0	0	469
Chase	127	127	138	133	138	144	0	0	0	807
Driggs	98	90	73	61	60	60	0	0	0	442
Generali	110	101	93	92	81	79	0	0	0	556
Hopeville	91	78	80	75	65	62	0	0	0	451
Kingsbury	75	83	75	85	76	74	0	0	0	468
Regan	39	42	47	51	60	63	0	0	0	302
Sprague	89	77	70	68	73	80	0	0	0	458
Tinker	89	86	86	89	89	77	0	0	0	516
Walsh	62	65	64	61	57	47	0	0	0	356
Washington	56	49	45	29	26	19	0	0	0	224
Wendell Cross	72	66	57	50	50	46	0	0	0	341
Wilson	92	73	54	52	58	56	0	0	0	384
K-8s										
Carrington	50	44	37	33	33	25	22	20	17	282
Duggan	42	38	39	42	46	45	42	39	34	368
Gilmartin	58	43	49	51	53	52	59	55	53	473
Reed	45	48	48	51	57	55	61	67	68	500
Middles										
North End Middle							421	387	412	1,220
Wallace Middle							404	382	382	1,168
West Side Middle							302	290	305	896
TOTAL:	1,412	1,302	1,233	1,216	1,206	1,199	1,311	1,240	1,271	11,390

Source: Prepared by MMI. 08/2015.

APPENDIX B- SCHOOL FACILITY EVALUATION

APPENDIX C- ADDITIONAL FACILITIES EVALUATED

APPENDIX D- ESTIMATES OF PROBABLE COST



Waterbury Public Schools - Elementary Schools - Current Room Inventory and Capacity Summary

		Existing Room Inventory (Note: Inventory reflects classroom deployment as reported by school principals in February 2015 and as observed during site visits conducted during February-March 2015)																				
School Name	Current Classroom Count	Pre-K	K	1	2	3	4	5	Shared	Science Rooms	World Language Rooms	Comp Labs	Special Education				Bilingual	ESL	Art Rooms	Music Rooms	Specialty Rooms	
													SPED	BDLC	Essential Skills	Autistic						
Bucks Hill School	No. of Rooms*	26	1	6	3	3	3	2	2	0	0	0	1	3	0	0	0	6	0	1	1	1
Bunker Hill School	No. of Rooms**	24	1	5	4	3	3	3	3	0	0	0	1	1	2	0	0	1	0	1	1	0
Chase Elementary School	No. of Rooms*	34	0	5	5	5	5	5	5	0	0	0	2	8	0	0	0	4	0	1	0	2
Driggs Elementary School	No. of Rooms	25	1	6	5	4	3	3	3	0	0	0	1	6	0	0	0	0	0	1	0	1
Generali Elementary School	No. of Rooms***	30	0	6	5	4	4	3	4	0	0	0	1	7	0	0	4	0	1	0	1	1
Hopeville Elementary School	No. of Rooms*	24	0	5	4	3	3	2	2	0	0	0	1	3	0	0	0	5	0	1	0	0
Kingsbury Elementary School	No. of Rooms	22	0	4	4	4	4	3	3	0	0	0	1	3	0	0	0	0	1	0	0	0
Regan Elementary School	No. of Rooms	11	0	2	2	2	2	1	2	0	0	0	1	3	0	0	0	0	0	0	0	0
Sprague Elementary School	No. of Rooms	23	3	5	4	3	3	3	2	0	0	0	1	3	0	0	0	0	1	1	1	4
Tinker Elementary School	No. of Rooms	23	0	4	4	4	4	4	3	0	0	0	1	7	0	0	0	0	1	1	0	0
Walsh Elementary School	No. of Rooms	25	1	4	4	4	4	4	4	0	0	0	0	4	0	0	0	0	1	1	1	2
Washington Elementary School	No. of Rooms*	16	1	3	3	2	3	2	2	0	0	0	1	2	0	0	0	0	1	1	0	2
Wendell Cross Elementary School	No. of Rooms	16	1	4	3	2	2	2	2	0	0	0	0	5	0	0	0	0	0	0	0	0
Woodrow Wilson Elementary School	No. of Rooms**	25	4	5	3	2	2	2	2	3	0	0	1	8	5	0	0	0	1	1	1	2
			13	64	53	45	45	39	39	3	0	0	13	63	7	0	4	16	7	10	6	15
* PreK-5 + Bilingual																						
** PreK-5 + BDLC																						
*** PreK-5 + Autistic																						

Waterbury Public Schools - Elementary Schools - Current Room Inventory and Capacity Summary

Available Room Capacity (Note: Available room capacity reflects classroom deployment as reported by school principals in February 2015 and as observed during site visits conducted during February-March 2015)																							
School Name	No. of Rooms	Current Classroom Count	Available Seats by Space	Pre-K	K	1	2	3	4	5	Shared	Science Rooms	World Language Rooms	Computer Labs	Special Education				Bilingual	ESL	Art Rooms	Music Rooms	Specialty Rooms
																SPED	BDLC	Essential Skills	Autistic				
Bucks Hill School	No. of Rooms*	26	545	14	106	70	70	70	42	40	0	0	0	17	37	0	0	0	132	0	16	20	7
Bunker Hill School	No. of Rooms**	24	446	14	77	83	70	59	59	59	0	0	0	17	7	24	0	0	9	0	14	17	0
Chase Elementary School	No. of Rooms*	34	714	0	80	110	106	122	103	128	0	0	0	39	76	0	0	0	66	0	17	0	24
Driggs Elementary School	No. of Rooms	25	446	11	83	97	79	59	59	59	0	0	0	14	55	0	0	0	0	0	14	0	7
Generali Elementary School	No. of Rooms***	30	552	0	104	108	81	75	65	83	0	0	0	10	47	0	0	36	0	8	0	20	0
Hopeville Elementary School	No. of Rooms*	24	467	0	77	94	63	59	47	40	0	0	0	16	30	0	0	0	88	0	16	0	0
Kingsbury Elementary School	No. of Rooms	22	445	0	61	95	79	79	59	71	0	0	0	14	25	0	0	0	0	0	0	0	0
Regan Elementary School	No. of Rooms	11	223	0	27	39	45	45	23	45	0	0	0	16	25	0	0	0	0	0	0	0	0
Sprague Elementary School	No. of Rooms	23	430	41	72	80	57	65	67	50	0	0	0	14	48	0	0	0	0	14	11	16	16
Tinker Elementary School	No. of Rooms	23	464	0	69	87	85	78	82	63	0	0	0	13	64	0	0	0	0	0	10	0	0
Walsh Elementary School	No. of Rooms	25	509	18	92	81	78	77	74	88	0	0	0	0	38	0	0	0	0	7	24	16	0
Washington Elementary School	No. of Rooms*	16	287	12	41	60	32	60	41	41	0	0	0	14	18	0	0	0	0	0	0	0	0
Wendell Cross Elementary School	No. of Rooms	16	375	14	84	76	50	50	50	50	0	0	0	0	44	0	0	0	0	0	0	0	0
Woodrow Wilson Elementary School	No. of Rooms**	25	440	82	95	59	40	40	44	44	0	0	0	96	36	0	0	0	13	15	11	7	0
				204	1068	1139	936	939	815	860	0	0	0	280	549	24	0	36	308	44	133	96	55
* PreK-5 + Bilingual																							
** PreK-5 + BDLC																							
*** PreK-5 + Autistic																							

Bucks Hill School		Existing Room Inventory (Note: Inventory reflects classroom deployment as reported by school principals in February 2015 and as observed during site visits conducted during February-March 2015)																																	
ROOM #	Room Type	Grade Level	Room Dimensions		Room Area (NSF)	Current NSF per Seat	Available NSF per Seat	Loc	Current Seat Count	Pre-K	K	1	2	3	4	5	Shared	Science Rooms	World Language Rooms	Comp Labs	Special Ed Rooms				Bilingual	ESL	Art Rooms	Music Rooms	Specialty Rooms						
			L	W						SPED	BDLC	Essential Skills	Autistic																						
F125	CLASSROOM	1	30	28	840	33.6	32.0		25			1																							
F129	CLASSROOM	1	30	28	840	35.0	32.0		24			1																							
F133	BILINGUAL CLASSROOM	1	30	28	840	33.6	32.0		25														1												
F127	CLASSROOM	1	30	28	840	36.5	32.0		23			1																							
F117	CLASSROOM	2	29.25	28	819	34.1	32.0		24				1																						
F119	CLASSROOM	2	29.25	28	819	32.8	32.0		25				1																						
F121	CLASSROOM	2	29.25	28	819	32.8	32.0		25				1																						
F123	BILINGUAL CLASSROOM	2	29.25	28	819	32.8	32.0		25														1												
F128	CLASSROOM	3	30	28	840	46.7	32.0		18					1																					
F132	CLASSROOM	3	30	28	840	44.2	32.0		19					1																					
F136	CLASSROOM	3	30	28	840	40.0	32.0		21					1																					
F126	BILINGUAL CLASSROOM	3	30	28	840	40.0	32.0		21														1												
F108	CLASSROOM	4	29.25	28	819	34.1	32.0		24						1																				
F113	BILINGUAL CLASSROOM	4	29.25	27.25	797	30.7	32.0		26														1												
F110	CLASSROOM	4	23.5	28.25	664	26.6	32.0		25					1																					
F111	BILINGUAL CLASSROOM	5	29.25	28.25	826	41.3	32.0		20														1												
F109	CLASSROOM	5	29.25	28	819	29.3	32.0		28						1																				
F107	CLASSROOM	5	20	28	560	18.7	32.0		30						1																				
F122	CLASSROOM	K	29.25	28	819	48.2	32.0		17		1																								
F131	CLASSROOM	K	30	28	840	46.7	45.0		18		1																								
F130	CLASSROOM	K	30	28	840	49.4	45.0		17		1																								
F106	CLASSROOM	K	29.25	28	819	43.1	45.0		19		1																								
F124	BILINGUAL CLASSROOM	K	29.25	28	819	35.6	45.0		23														1												
F118	CLASSROOM	K	29.25	28	819	39.0	45.0		21		1																								
F120	CLASSROOM	K	29.25	28	819	41.0	45.0		20		1																								
F135	COMPUTER LAB	K-5	30	28	840	#DIV/0!	45.0													1															
F112	SPED	K-5	24.5	28	686	#DIV/0!	32.0															1													
B101	OT/PT	K-5	26	17	442	#DIV/0!	55.0															1						1							
B103	PPT	K-5	26	16	416																														
B102	READING TUTORS	K-5	24	16.5	396	#DIV/0!	32.0															1													
F134	CLASSROOM	PRE-K	30	28	840	46.7	55.0		18	1																									
	GYMNASIUM		72	52	3,744																														
B100A	ART		28.5	28.25	805	#DIV/0!	45.0																		1										
B100B	MUSIC		28.5	28.25	805	#DIV/0!	36.0																			1									
	CAFETERIA																																		
										1	6	3	3	3	2	2	0	0	0	1	3	0	0	0	6	0	1	1	1						
									26	Current Classroom Count (PreK-5 + Bilingual)																									

Bucks Hill School																										
Available Room Capacity (Note: Available room capacity reflects classroom deployment as reported by school principals in February 2015 and as observed during site visits conducted during February-March 2015)																										
ROOM #	Room Type	Grade Level	Room Dimensions		Room Area (NSF)	Available Seats by Space	Pre-K	K	1	2	3	4	5	Shared	Science Rooms	World Language Rooms	Computer Labs	Special Ed Rooms				Bilingual	ESL	Art Rooms	Music Rooms	Specialty Rooms
			L	W														90% Utilization	SPED	BDLC	Essential Skills					
F125	CLASSROOM	1	30	28	840	23			23																	
F129	CLASSROOM	1	30	28	840	23			23																	
F133	BILINGUAL CLASSROOM	1	30	28	840	23															23					
F127	CLASSROOM	1	30	28	840	23			23																	
F117	CLASSROOM	2	29.25	28	819	23				23																
F119	CLASSROOM	2	29.25	28	819	23				23																
F121	CLASSROOM	2	29.25	28	819	23				23																
F123	BILINGUAL CLASSROOM	2	29.25	28	819	23															23					
F128	CLASSROOM	3	30	28	840	23					23															
F132	CLASSROOM	3	30	28	840	23					23															
F136	CLASSROOM	3	30	28	840	23					23															
F126	BILINGUAL CLASSROOM	3	30	28	840	23															23					
F108	CLASSROOM	4	29.25	28	819	23						23														
F113	BILINGUAL CLASSROOM	4	29.25	27.25	797	23															23					
F110	CLASSROOM	4	23.5	28.25	664	19					19															
F111	BILINGUAL CLASSROOM	5	29.25	28.25	826	23															23					
F109	CLASSROOM	5	29.25	28	819	23							23													
F107	CLASSROOM	5	20	28	560	16							16													
F122	CLASSROOM	K	29.25	28	819	23		23																		
F131	CLASSROOM	K	30	28	840	17		17																		
F130	CLASSROOM	K	30	28	840	17		17																		
F106	CLASSROOM	K	29.25	28	819	16		16																		
F124	BILINGUAL CLASSROOM	K	29.25	28	819	16															16					
F118	CLASSROOM	K	29.25	28	819	16		16																		
F120	CLASSROOM	K	29.25	28	819	16		16																		
F135	COMPUTER LAB	K-5	30	28	840	17										17										
F112	SPED	K-5	24.5	28	686	19														19						
B101	OT/PT	K-5	26	17	442	7														7						7
B103	PPT	K-5	26	16	416																					
B102	READING TUTORS	K-5	24	16.5	396	11														11						
F134	CLASSROOM	PRE-K	30	28	840	14	14																			
	GYMNASIUM		72	52	3,744																					
B100A	ART		28.5	28.25	805	16																	16			
B100B	MUSIC		28.5	28.25	805	20																		20		
	CAFETERIA																									
							14	106	70	70	70	42	40	0	0	0	17	37	0	0	0	132	0	16	20	7
							545	Available	Capacity in Academic Classrooms (PreK-5 + Bilingual)																	

Bunker Hill School																												
Existing Room Inventory (Note: Inventory reflects classroom deployment as reported by school principals in February 2015 and as observed during site visits conducted during February-March 2015)																												
ROOM #	Room Type	Grade Level	Room Dimensions		Room Area (NSF)	Classroom Counts										Science Rooms	World Language Rooms	Computer Labs	Special Ed Rooms				Bilingual	ESL	Art Rooms	Music Rooms	Specialty Rooms	
			L	W		Pre-K	K	1	2	3	4	5	shared	SPED	BDLC				Essential Skills	Autistic								
S116	CLASSROOM	1	30	28	840			1																				
S113	CLASSROOM	1	25	28	700			1																				
S107	CLASSROOM	1	25	28	700			1																				
S105	CLASSROOM	1	25	28	700			1																				
T113	CLASSROOM	2	29.75	28	840				1																			
F107	CLASSROOM	2	30	28	840				1																			
F109	CLASSROOM	2	30	28	840				1																			
T104	CLASSROOM	3	25.25	28	707					1																		
T108	CLASSROOM	3	25	28	700					1																		
T110	CLASSROOM	3	25	28	700					1																		
T102	CLASSROOM	4	28	25	700						1																	
T101	CLASSROOM	4	25	28	700						1																	
T103	CLASSROOM	4	25	28	700						1																	
T105	CLASSROOM	5	25	28	694							1																
T107	CLASSROOM	5	25	28	700							1																
T109	CLASSROOM	5	25	28	700							1																
B102	BDLC	3-5 PLC	29.5	25	730											1												
S117	CLASSROOM	K	28.25	30	848			1																				
S104	CLASSROOM	K	25	28	700			1																				
S103	CLASSROOM	K	25	28	700			1																				
S106	CLASSROOM	K	25	28	700			1																				
B106	CLASSROOM	K	30	28	840			1																				
B101	BDLC	K-2 PLC	25	31	769											1												
B104	CLASSROOM	Pre-K	30	28	840	1																						
	Art		25	28	700																1							
T106	Bilingual		16	21	332														1									
F105	Cafeteria		25	36	894																							
T112	Computer		28	30	840									1														
B105	Gymnasium		72.75	37	2,663																							
S112	Library		40	25	1,000																							
	MUSIC/SPEECH		24.75	28	693																	1						
F110	Reading		23.5	11	253										1													
S109/S111	Teacher's Lounge/Conf.				0																							
						1	5	4	3	3	3	3	0	0	0	1	1	2	0	0	1	0	1	1	0			
						24	Current Classroom Count (PreK-5 + BDLC)																					

Bunker Hill School						Available Room Capacity (Note: Available room capacity reflects classroom deployment as reported by school principals in February 2015 and as observed during site visits conducted during February-March 2015)																				
ROOM #	Room Type	Grade Level	Room Dimensions		Room Area (NSF)	Available Seats by Space	Pre-K	K	1	2	3	4	5	shared	Science Rooms	World Language Rooms	Computer Labs	Special Ed Rooms				Bilingual	ESL	Art Rooms	Music Rooms	Specialty Rooms
			L	W			Utilization										SPED	BDLC	Essential Skills	Autistic						
S116	CLASSROOM	1	30	28	840	23			23																	
S113	CLASSROOM	1	25	28	700	20			20																	
S107	CLASSROOM	1	25	28	700	20			20																	
S105	CLASSROOM	1	25	28	700	20			20																	
T113	CLASSROOM	2	29.75	28	840	23				23																
F107	CLASSROOM	2	30	28	840	23				23																
F109	CLASSROOM	2	30	28	840	23				23																
T104	CLASSROOM	3	25.25	28	707	20					20															
T108	CLASSROOM	3	25	28	700	20					20															
T110	CLASSROOM	3	25	28	700	20					20															
T102	CLASSROOM	4	28	25	700	20						20														
T101	CLASSROOM	4	25	28	700	20						20														
T103	CLASSROOM	4	25	28	700	20						20														
T105	CLASSROOM	5	25	28	694	20							20													
T107	CLASSROOM	5	25	28	700	20							20													
T109	CLASSROOM	5	25	28	700	20							20													
B102	BDLC	3-5 PLC	29.5	25	730	12														12						
S117	CLASSROOM	K	28.25	30	848	17																				
S104	CLASSROOM	K	25	28	700	14																				
S103	CLASSROOM	K	25	28	700	14																				
S106	CLASSROOM	K	25	28	700	14																				
B106	CLASSROOM	K	30	28	840	17																				
B101	BDLC	K-2 PLC	25	31	769	12															12					
B104	CLASSROOM	Pre-K	30	28	840	14																				
	Art		25	28	700	14																		14		
T106	Bilingual		16	21	332	9															9					
F105	Cafeteria		25	36	894																					
T112	Computer		28	30	840	17											17									
B105	Gymnasium		72.75	37	2,663																					
S112	Library		40	25	1,000																					
	MUSIC/SPEECH		24.75	28	693	17																		17		
F110	Reading		23.5	11	253	7																				
S109/S111	Teacher's Lounge/Conf.				0																					
							14	77	83	70	59	59	59	0	0	0	17	7	24	0	0	9	0	14	17	0
							446	Available Capacity in Academic Classrooms (PreK-5 + BDLC)																		

Chase Elementary School																																			
Existing Room Inventory (Note: Inventory reflects classroom deployment as reported by school principals in February 2015 and as observed during site visits conducted during February-March 2015)																																			
ROOM #	Room Type	Grade Level	Room Dimensions		Room Area (NSF)	Existing Room Inventory										Special Ed Rooms				Bilingual	ESL	Art Rooms	Music Rooms	Specialty Rooms											
			L	W		Pre-K	K	1	2	3	4	5	shared	Science Rooms	World Language Rooms	Computer Labs	SPED	BDLC	Essential Skills						Autistic										
F105	CLASSROOM	1	25	28	700			1																											
F106	CLASSROOM	1	25	28	700			1																											
F110	BILINGUAL CLASSROOM	1	25	28	700														1																
F102	CLASSROOM	1	24.25	34.25	831			1																											
F103	CLASSROOM	1	24.25	34.25	831			1																											
F104	CLASSROOM	1	24.25	34.25	831			1																											
B109	CLASSROOM	2	24.5	27.75	680				1																										
B107	CLASSROOM	2	24.75	27.75	687				1																										
B106	CLASSROOM	2	24	30.25	726				1																										
B108	CLASSROOM	2	24.5	30.5	747				1																										
F109	BILINGUAL CLASSROOM	2	24	32.25	774														1																
B111	CLASSROOM	2	24.5	39.75	974				1																										
S116	CLASSROOM	3	30.75	25	769					1																									
S119	CLASSROOM	3	27	31.75	857					1																									
S117	CLASSROOM	3	27	31.75	857					1																									
S121	CLASSROOM	3	27	32	864					1																									
S210	CLASSROOM	3	26.5	35.75	947					1																									
S108	CLASSROOM	4	25	27.75	694						1																								
S112	CLASSROOM	4	25	28	700						1																								
S110	CLASSROOM	4	25	28	700						1																								
S113	CLASSROOM	4	24	32.25	774						1																								
S111	CLASSROOM	4	24	32.25	774						1																								
S105	CLASSROOM (loft above stage)	5			1,371							1																							
S102	CLASSROOM	5	23.5	34.25	805							1																							
S104	CLASSROOM	5	24.25	34.25	831							1																							
S103	CLASSROOM	5	24.25	34.25	831							1																							
S106	CLASSROOM	5	25	27.83	696							1																							
S115	CLASSROOM	3,4,5	24.25	32.25	782									1																					
F118	BILINGUAL CLASSROOM	K	24.25	24.25	588														1																
F116	BILINGUAL CLASSROOM	K	27	23.75	641														1																
F108	CLASSROOM	K	25	28	700			1																											
F111	CLASSROOM	K	23	32.25	742			1																											
F113	CLASSROOM	K	26.5	32	848			1																											
F115	CLASSROOM	K	27	31.5	851			1																											
F117	CLASSROOM	K	27	31.5	851			1																											
B101	Classroom (Youth Services)	Pre-K	36.25	25	906																	1													
F107	Computer	K-2	26.5	32.25	855									1																					
	TUTORS	K-5			550										1																				
	SPEECH	K-5			550										1																				
F119	Social Worker	K-5	9.25	7	65																														
S114	SPED	K-5	15	10.25	154										1																				
B105	SPED	K-5	26.5	20.25	537										1																				
S118	SPED Resource		20.5	11.75	241										1																				
S101	Psych	K-5	26.5	10.5	278																														
B110	Resource	K-5	24.5	11.75	288										1																				
B104	Suspension	K-5	27.25	13.5	368																	1													
S100	Reading	K-5	14.5	32	464										1																				
S107	Reading	K-5			120										1																				
F114	Art	K-5	33	25.25	833															1															
S109	Library																																		
	Cafeteria																																		
F119	Social Worker				182																														
	Gymnasium		56.75	84	4,767																														
			TOTAL			0	5	5	5	5	5	5	0	0	0	2	8	0	0	0	4	0	1	0	2										
						34	Current Classroom Count (PreK-5 + Bilingual)																												

Chase Elementary School						Available Room Capacity (Note: Available room capacity reflects classroom deployment as reported by school principals in February 2015 and as observed during site visits conducted during February-March 2015)																													
ROOM #	Room Type	Grade Level	Room Dimensions		Room Area (NSF)	Available Seats by Space	Pre-K	K	1	2	3	4	5	shared	Science Rooms	World Language Rooms	Computer Labs	Special Ed Rooms				Bilingual	ESL	Art Rooms	Music Rooms	Specialty Rooms									
			L	W														SPED	BDLC	Essential Skills	Autistic														
						90% Utilization																													
F105	CLASSROOM	1	25	28	700	20			20																										
F106	CLASSROOM	1	25	28	700	20			20																										
F110	BILINGUAL CLASSROOM	1	25	28	700	20															20														
F102	CLASSROOM	1	24.25	34.25	831	23			23																										
F103	CLASSROOM	1	24.25	34.25	831	23			23																										
F104	CLASSROOM	1	24.25	34.25	831	23			23																										
B109	CLASSROOM	2	24.5	27.75	680	19				19																									
B107	CLASSROOM	2	24.75	27.75	687	19				19																									
B106	CLASSROOM	2	24	30.25	726	21				21																									
B108	CLASSROOM	2	24.5	30.5	747	21				21																									
F109	BILINGUAL CLASSROOM	2	24	32.25	774	22															22														
B111	CLASSROOM	2	24.5	39.75	974	27				27																									
S116	CLASSROOM	3	30.75	25	769	22					22																								
S119	CLASSROOM	3	27	31.75	857	24					24																								
S117	CLASSROOM	3	27	31.75	857	24					24																								
S121	CLASSROOM	3	27	31.75	864	24					24																								
S210	CLASSROOM	3	26.5	35.75	947	27					27																								
S108	CLASSROOM	4	25	27.75	694	20						20																							
S112	CLASSROOM	4	25	28	700	20						20																							
S110	CLASSROOM	4	25	28	700	20						20																							
S113	CLASSROOM	4	24	32.25	774	22						22																							
S111	CLASSROOM	4	24	32.25	774	22						22																							
S105	CLASSROOM (loft above stage)	5			1,371	39							39																						
S102	CLASSROOM	5	23.5	34.25	805	23							23																						
S104	CLASSROOM	5	24.25	34.25	831	23							23																						
S103	CLASSROOM	5	24.25	34.25	831	23							23																						
S106	CLASSROOM	5	25	27.83	696	20							20																						
S115	CLASSROOM	3,4,5	24.25	32.25	782	22										21.6																			
F118	BILINGUAL CLASSROOM	K	24.25	24.25	588	12															12														
F116	BILINGUAL CLASSROOM	K	27	23.75	641	13															13														
F108	CLASSROOM	K	25	28	700	14		14																											
F111	CLASSROOM	K	23	32.25	742	14		14																											
F113	CLASSROOM	K	26.5	32	848	17		17																											
F115	CLASSROOM	K	27	31.5	851	17		17																											
F117	CLASSROOM	K	27	31.5	851	17		17																											
B101	Classroom (Youth Services)	Pre-K	36.25	25	906	14																			14										
F107	Computer	K-2	26.5	32.25	855	17										17																			
	TUTORS	K-5			550	15															15														
	SPEECH	K-5			550	15															15														
F119	Social Worker	K-5	9.25	7	65																														
S114	SPED	K-5	15	10.25	154	5															5														
B105	SPED	K-5	26.5	20.25	537	15															15														
S118	SPED Resource		20.5	11.75	241	7																													
S101	Psych	K-5	26.5	10.5	278	8																													
B110	Resource	K-5	24.5	11.75	288	8															8														
B104	Suspension	K-5	27.25	13.5	368	10																			10										
S100	Reading	K-5	14.5	32	464	14															14														
S107	Reading	K-5			120	4															4														
F114	Art	K-5	33	25.25	833	17																	17												
S109	Library																																		
	Cafeteria																																		
F119	Social Worker				182																														
	Gymnasium		56.75	84	4,767																														
			TOTAL				0	80.1	109.8	106.2	121.5	102.6	127.8	0	0	0	39	76	0	0	0	66	0	17	0	24									
							714	Available Capacity in Academic Classrooms (PreK-5 + Bilingual)																											

Driggs Elementary School																											
Existing Room Inventory (Note: Inventory reflects classroom deployment as reported by school principals in February 2015 and as observed during site visits conducted during February-March 2015)																											
ROOM #	Room Type	Grade Level	Room Dimensions		Room Area (NSF)	Classroom Count										Science Rooms	World Language Rooms	Computer Labs	Special Ed Rooms				Bilingual	ESL	Art Rooms	Music Rooms	Specialty Rooms
			L	W		Pre-K	K	1	2	3	4	5	shared	SPED	BDLC				Essential Skills	Autistic							
F104	CLASSROOM	1	28	24.25	679			1																			
F105	CLASSROOM	1	24.5	28.5	698			1																			
F106	CLASSROOM	1	24.5	27.75	680			1																			
F107	CLASSROOM	1	24.5	29.5	723			1																			
F109	CLASSROOM	1	24.25	27.75	673			1																			
F102	CLASSROOM	2	24.75	28	693				1																		
F113	CLASSROOM	2	24.75	28	693				1																		
F114	CLASSROOM	2	24.75	28.25	699				1																		
F115	CLASSROOM	2	25	28.25	706				1																		
S112	CLASSROOM	3	24.5	28	686					1																	
S114	CLASSROOM	3	24.75	28	693					1																	
S117	CLASSROOM	3	24.75	28.25	699					1																	
S107	CLASSROOM	4	24.75	28.5	705						1																
S109	CLASSROOM	4	24.5	28	686						1																
S111	CLASSROOM	4	24.75	28	693						1																
S103	CLASSROOM	5	24.5	28	686							1															
S105	CLASSROOM	5	25	28.6	715							1															
S106	CLASSROOM	5	25	27.75	694							1															
B103	CLASSROOM	K	31.25	23	719		1																				
B105	CLASSROOM	K	27	25	675		1																				
B109	CLASSROOM	K	22	28	616		1																				
B110	CLASSROOM	K	31.25	24	750		1																				
F111	CLASSROOM	K	24.5	28	686		1																				
F112	CLASSROOM	K	24.5	28	686		1																				
49	CLASSROOM	Pre-K	20	31.75	635	1																					
B110	ANNEX		16	12	192																						
S119	Art		24.5	28	686																1						
	Cafeteria		61.75	39	2,408																						
S101	Computer		24.75	28	693									1													
	gymnasium		73.5	57.5	4,226																						
F110	Reading		22.75	11.25	256									1													
S108	Reading		24.75	12.25	303									1													
S115	Reading		25	14.5	363									1													
B102	SPED		37	12.75	472									1													
S116	SPED		24.75	13.5	334									1													
S110	Speech		22.75	11	250									1													
S102	Suspension		23.25	11	256																	1					
						1	6	5	4	3	3	3	0	0	0	1	6	0	0	0	0	0	1	0	1		
						25	Current Classroom Count (PreK-5)																				

Driggs Elementary School																										
Room Dimensions						Available Room Capacity (Note: Available room capacity reflects classroom deployment as reported by school principals in February 2015 and as observed during site visits conducted during February-March 2015)																				
ROOM #	Room Type	Grade Level	L	W	Room Area (NSF)	Available Seats by Space	Pre-K	K	1	2	3	4	5	shared	Science Rooms	World Language Rooms	Computer Labs	Special Ed Rooms				Bilingual	ESL	Art Rooms	Music Rooms	Specialty Rooms
						90%	Utilization										SPED	BDLC	Essential Skills	Autistic						
F104	CLASSROOM	1	28	24.25	679	19			19																	
F105	CLASSROOM	1	24.5	28.5	698	20			20																	
F106	CLASSROOM	1	24.5	27.75	680	19			19																	
F107	CLASSROOM	1	24.5	29.5	723	21			21																	
F109	CLASSROOM	1	24.25	27.75	673	19			19																	
F102	CLASSROOM	2	24.75	28	693	20				20																
F113	CLASSROOM	2	24.75	28	693	20				20																
F114	CLASSROOM	2	24.75	28.25	699	20				20																
F115	CLASSROOM	2	25	28.25	706	20				20																
S112	CLASSROOM	3	24.5	28	686	19					19															
S114	CLASSROOM	3	24.75	28	693	20					20															
S117	CLASSROOM	3	24.75	28.25	699	20					20															
S107	CLASSROOM	4	24.75	28.5	705	20						20														
S109	CLASSROOM	4	24.5	28	686	19						19														
S111	CLASSROOM	4	24.75	28	693	20						20														
S103	CLASSROOM	5	24.5	28	686	19							19													
S105	CLASSROOM	5	25	28.6	715	20								20												
S106	CLASSROOM	5	25	27.75	694	20								20												
B103	CLASSROOM	K	31.25	23	719	14		14																		
B105	CLASSROOM	K	27	25	675	14		14																		
B109	CLASSROOM	K	22	28	616	13		13																		
B110	CLASSROOM	K	31.25	24	750	15		15																		
F111	CLASSROOM	K	24.5	28	686	14		14																		
F112	CLASSROOM	K	24.5	28	686	14		14																		
49	CLASSROOM	Pre-K	20	31.75	635	11	11																			
B110	ANNEX		16	12	192																					
S119	Art		24.5	28	686	14																	14			
	Cafeteria		61.75	39	2,408																					
S101	Computer		24.75	28	693	14										14										
	gymnasium		73.5	57.5	4,226																					
F110	Reading		22.75	11.25	256	7											7									
S108	Reading		24.75	12.25	303	8											8									
S115	Reading		25	14.5	363	10											10									
B102	SPED		37	12.75	472	14											14									
S116	SPED		24.75	13.5	334	9											9									
S110	Speech		22.75	11	250	7											7									
S102	Suspension		23.25	11	256	7																			7	
							11	83	97	79	59	59	59	0	0	0	14	55	0	0	0	0	0	14	0	7
							445.5	Available Capacity in Academic Classrooms (PreK-5)																		

Generali Elementary School																										
Existing Room Inventory (Note: Inventory reflects classroom deployment as reported by school principals in February 2015 and as observed during site visits conducted during February-March 2015)																										
ROOM #	Room Type	Grade Level	Room Dimensions		Room Area (NSF)	Pre-K	K	1	2	3	4	5	Shared	Science Rooms	World Language Rooms	Computer Labs	Special Ed Rooms				Bilingual	ESL	Art Rooms	Music Rooms	Specialty Rooms	
			L	W													SPED	BDLC	Essential Skills	Autistic						
F104	CLASSROOM	1	27.75	28	777			1																		
F105	CLASSROOM	1	27.75	28	777			1																		
F106	CLASSROOM	1	27.75	28	777			1																		
F107	CLASSROOM	1	27.75	28	777			1																		
F108	CLASSROOM	1	27.75	28	777			1																		
F109	CLASSROOM	2	27.75	28	777				1																	
P105	CLASSROOM	2	20	34.75	695				1																	
P107	CLASSROOM	2	20	34.75	695				1																	
F102	CLASSROOM	2	25	27.75	694				1																	
P101	CLASSROOM	3	20	34.75	695					1																
P102	CLASSROOM	3	20	34.75	695					1																
P103	CLASSROOM	3	20	34.75	695					1																
P104	CLASSROOM	3	20	32	640					1																
S105	CLASSROOM	4	28	28.25	791						1															
S107	CLASSROOM	4	28	28.25	791						1															
S103	CLASSROOM	4	25.25	28	707						1															
S106	CLASSROOM	5	28	28.25	791							1														
S109	CLASSROOM	5	27.75	28	777							1														
S110	CLASSROOM	5	27.75	28	777							1														
S101	CLASSROOM	5	23.25	27.75	645							1														
B102	CLASSROOM	K	32.5	29	943		1																			
B106	CLASSROOM	K	32.5	28	910		1																			
B103	CLASSROOM	K	22.5	39.25	883		1																			
B104	CLASSROOM	K	28	30	840		1																			
B107	CLASSROOM	K	22.5	35.5	799		1																			
B105	CLASSROOM	K	22.5	35.5	799		1																			
G103	ABA (AUSTISM)	2,3	29	19.25	558																1					
G106	ABA	K,1	30	27	810																1					
G104	ABA	K-5	27	28	756																1					
G105	ABA (sensory lab)	K-5	27.5	12.25	337																1					
ST04	SPED / RESOURCE	K-5	12	17.83	214																1					
ST04A	SPED / RESOURCE	K-5	13	14.5	189																1					
B101	SPED / RESOURCE	K-5	20	21.5	430																1					
S108	ART/ MUSIC	K-5	27.75	28	777																	1				
G102	COMPUTER LAB	K-5	19.5	25	488											1										
ST02	SPEECH	K-5	21	15	315																1					
G108	ESL	K-5	14.25	19.25	274																1					
G109	READING	K-5	14.25	19.25	274																1					
G11	READING	K-5	14.25	16.25	232																1					
	SOCIAL WORKER	K-5	10	11	110																			1		
	GYMNASIUM		96	70.25	6,744																					
	STAGE																									
	CAFETERIA		80	35.5	2,840																					
G110	LIBRARY		30	30.5	915																					
						0	6	5	4	4	3	4	0	0	0	1	7	0	0	4	0	1	0	1	1	
						30	Current Classroom Count (PreK-5 + Autistic)																			

Generali Elementary School						Available Room Capacity (Note: Available room capacity reflects classroom deployment as reported by school principals in February 2015 and as observed during site visits conducted during February-March 2015)																				
ROOM #	Room Type	Grade Level	Room Dimensions		Room Area (NSF)	Available Seats by Space	Pre-K	K	1	2	3	4	5	Shared	Science Rooms	World Language Rooms	Computer Labs	Special Ed Rooms				Bilingual	ESL	Art Rooms	Music Rooms	Specialty Rooms
			L	W														SPED	BDLC	Essential Skills	Autistic					
						90% Utilization																				
F104	CLASSROOM	1	27.75	28	777	22			22																	
F105	CLASSROOM	1	27.75	28	777	22			22																	
F106	CLASSROOM	1	27.75	28	777	22			22																	
F107	CLASSROOM	1	27.75	28	777	22			22																	
F108	CLASSROOM	1	27.75	28	777	22			22																	
F109	CLASSROOM	2	27.75	28	777	22				22																
P105	CLASSROOM	2	20	34.75	695	20				20																
P107	CLASSROOM	2	20	34.75	695	20				20																
F102	CLASSROOM	2	25	27.75	694	20				20																
P101	CLASSROOM	3	20	34.75	695	19					19															
P102	CLASSROOM	3	20	34.75	695	19					19															
P103	CLASSROOM	3	20	34.75	695	19					19															
P104	CLASSROOM	3	20	32	640	18					18															
S105	CLASSROOM	4	28	28.25	791	23						23														
S107	CLASSROOM	4	28	28.25	791	23						23														
S103	CLASSROOM	4	25.25	28	707	20						20														
S106	CLASSROOM	5	28	28.25	791	22							22													
S109	CLASSROOM	5	27.75	28	777	22							22													
S110	CLASSROOM	5	27.75	28	777	22							22													
S101	CLASSROOM	5	23.25	27.75	645	18							18													
B102	CLASSROOM	K	32.5	29	943	19								19												
B106	CLASSROOM	K	32.5	28	910	18								18												
B103	CLASSROOM	K	22.5	39.25	883	18								18												
B104	CLASSROOM	K	28	30	840	17								17												
B107	CLASSROOM	K	22.5	35.5	799	16								16												
B105	CLASSROOM	K	22.5	35.5	799	16								16												
G103	ABA (AUSTISM)	2,3	29	19.25	558	12																	12			
G106	ABA	K,1	30	27	810	12																	12			
G104	ABA	K-5	27	28	756	12																	12			
G105	ABA (sensory lab)	K-5	27.5	12.25	337																					
ST04	SPED / RESOURCE	K-5	12	17.83	214	6																				
ST04A	SPED / RESOURCE	K-5	13	14.5	189	5																				
B101	SPED / RESOURCE	K-5	20	21.5	430	12																				
S108	ART/ MUSIC	K-5	27.75	28	777	20																		20		
G102	COMPUTER LAB	K-5	19.5	25	488	10											10									
ST02	SPEECH	K-5	21	15	315	9																				
G108	ESL	K-5	14.25	19.25	274	8																8				
G109	READING	K-5	14.25	19.25	274	8																				
G11	READING	K-5	14.25	16.25	232	6																				
	SOCIAL WORKER	K-5	10	11	110																					
	GYMNASIUM		96	70.25	6,744																					
	STAGE																									
	CAFETERIA		80	35.5	2,840																					
G110	LIBRARY		30	30.5	915																					
							0	104	108	81	75	65	83	0	0	0	10	47	0	0	36	0	8	0	20	0
							552	Available Capacity in Academic Classrooms (PreK-5 + Autistic)																		

Hopeville Elementary School																										
Existing Room Inventory (Note: Inventory reflects classroom deployment as reported by school principals in February 2015 and as observed during site visits conducted during February-March 2015)																										
ROOM #	Room Type	Grade Level	Room Dimensions		Room Area (NSF)	Pre-K	K	1	2	3	4	5	Shared	Science Rooms	World Language Rooms	Computer Labs	Special Ed Rooms				Bilingual	ESL	Art Rooms	Music Rooms	Specialty Rooms	
			L	W													SPED	BDLC	Essential Skills	Autistic						
F101	BILINGUAL CLASSROOM	1	25.25	31.75	802															1						
F105	CLASSROOM	1	24.25	34.25	831			1																		
F102	CLASSROOM	1	24.25	34.5	837			1																		
F104	CLASSROOM	1	24.25	34.5	837			1																		
F100	CLASSROOM	1	25.25	33.5	846			1																		
F108	CLASSROOM	2	25	28	700				1																	
F106	CLASSROOM	2	25	28.25	706				1																	
S107	BILINGUAL CLASSROOM	2	25.25	28.25	713															1						
F107	CLASSROOM	2	24.25	34	825				1																	
S106	CLASSROOM	3	25.25	28	707					1																
S110	BILINGUAL CLASSROOM	3	25.25	28	707															1						
S111	CLASSROOM	3	25.25	28.25	713					1																
S113	CLASSROOM	3	25.25	28.25	713					1																
S104	BILINGUAL CLASSROOM	4	25.25	28	707															1						
S103	CLASSROOM	4	24.25	34.25	831						1															
S105	CLASSROOM	4	24.25	34.25	831						1															
F114	CLASSROOM	5	25	28	700							1														
F113	CLASSROOM	5	25.25	28	707							1														
F109	CLASSROOM	K	25.25	27.5	694		1																			
B103	CLASSROOM	K	26	27.25	709		1																			
B104	CLASSROOM	K	33	24.25	800		1																			
B100	CLASSROOM	K	24.75	33.25	823		1																			
B101	CLASSROOM	K	26.25	31.5	827		1																			
F110	Office																									
F111	Office				0																					
F112	PPT/ Psychologist																									
S109	Nurse				0																					
B102	Bilingual Reading		19.25	11.5	221															1						
S112	Reading		25	13.5	338															1						
F103	Teacher's Lounge		24	11.5	276																					
S108	SPED		27	12	324															1						
S114	Speech		25	15.6	390															1						
S100	Computer Lab		23.6	33.5	791												1									
S101	Social Worker/ Guidance																									
S102	Art/ Music		24.25	34.25	831																	1				
	Cafeteria		40.25	42.5	1,711																					
	Library																									
						0	5	4	3	3	2	2	0	0	0	1	3	0	0	0	5		1	0	0	
						24	Current Classroom Count (PreK-5 + Bilingual)																			

Hopeville Elementary School						Available Room Capacity (Note: Available room capacity reflects classroom deployment as reported by school principals in February 2015 and as observed during site visits conducted during February-March 2015)																				
ROOM #	Room Type	Grade Level	Room Dimensions		Room Area (NSF)	Available Seats by Space	Pre-K	K	1	2	3	4	5	Shared	Science Rooms	World Language Rooms	Computer Labs	Special Ed Rooms				Bilingual	ESL	Art Rooms	Music Rooms	Specialty Rooms
			L	W														SPED	BDLC	Essential Skills	Autistic					
						90%	Utilization																			
F101	BILINGUAL CLASSROOM	1	25.25	31.75	802	23															23					
F105	CLASSROOM	1	24.25	34.25	831	23			23																	
F102	CLASSROOM	1	24.25	34.5	837	23			23																	
F104	CLASSROOM	1	24.25	34.5	837	23			23																	
F100	CLASSROOM	1	25.25	33.5	846	23			23																	
F108	CLASSROOM	2	25	28	700	20				20																
F106	CLASSROOM	2	25	28.25	706	20				20																
S107	BILINGUAL CLASSROOM	2	25.25	28.25	713	20															20					
F107	CLASSROOM	2	24.25	34	825	23				23																
S106	CLASSROOM	3	25.25	28	707	20					20															
S110	BILINGUAL CLASSROOM	3	25.25	28	707	20															20					
S111	CLASSROOM	3	25.25	28.25	713	20					20															
S113	CLASSROOM	3	25.25	28.25	713	20					20															
S104	BILINGUAL CLASSROOM	4	25.25	28	707	20															20					
S103	CLASSROOM	4	24.25	34.25	831	23						23														
S105	CLASSROOM	4	24.25	34.25	831	23						23														
F114	CLASSROOM	5	25	28	700	20							20													
F113	CLASSROOM	5	25.25	28	707	20							20													
F109	CLASSROOM	K	25.25	27.5	694	14		14																		
B103	CLASSROOM	K	26	27.25	709	14		14																		
B104	CLASSROOM	K	33	24.25	800	16		16																		
B100	CLASSROOM	K	24.75	33.25	823	16		16																		
B101	CLASSROOM	K	26.25	31.5	827	16		16																		
F110	Office																									
F111	Office				0																					
F112	PPT/ Psychologist																									
S109	Nurse				0																					
B102	Bilingual Reading		19.25	11.5	221	6															6					
S112	Reading		25	13.5	338	10											10									
F103	Teacher's Lounge		24	11.5	276																					
S108	SPED		27	12	324	9											9									
S114	Speech		25	15.6	390	11											11									
S100	Computer Lab		23.6	33.5	791	16										16										
S101	Social Worker/ Guidance																									
S102	Art/ Music		24.25	34.25	831	16																	16			
	Cafeteria		40.25	42.5	1,711																					
	Library																									
							0	77	94	63	59	47	40	0	0	0	16	30	0	0	0	88	0	16	0	0
							467	Available Capacity in Academic Classrooms (PreK-5 + Bilingual)																		

Kingsbury Elementary School																											
Existing Room Inventory (Note: Inventory reflects classroom deployment as reported by school principals in February 2015 and as observed during site visits conducted during February-March 2015)																											
ROOM #	Room Type	Grade Level	Room Dimensions		Room Area (NSF)	Classroom Counts										Science Rooms	World Language Rooms	Computer Labs	Special Ed Rooms				Bilingual	ESL	Art Rooms	Music Rooms	Specialty Rooms
			L	W		Pre-K	K	1	2	3	4	5	Shared	SPED	BDLC				Essential Skills	Autistic							
F109	CLASSROOM	1	34.5	23.5	811			1																			
F111	CLASSROOM	1	34	25	850			1																			
F112	CLASSROOM	1	29	25	725			1																			
F114	CLASSROOM	1	39	25	975			1																			
F102	CLASSROOM	2	28	25	700				1																		
F105	CLASSROOM	2	28	25	700				1																		
F107	CLASSROOM	2	28	25	700				1																		
F106	CLASSROOM	2	28	25	700				1																		
S102	CLASSROOM	3	28.16	25	704					1																	
S103	CLASSROOM	3	28.25	25	706					1																	
S106	CLASSROOM	3	28	25	700					1																	
S108	CLASSROOM	3	28	25	700					1																	
S107	CLASSROOM	4	28	25	700						1																
S110	CLASSROOM	4	28	25	700						1																
S111	CLASSROOM	4	28	25	700						1																
S115	CLASSROOM	5	34	25	850							1															
S116	CLASSROOM	5	36.75	24	882							1															
S117	CLASSROOM	5	34	23	782							1															
F103	Computer		28	25	700									1													
B111	Reading		26.5	12.67	336										1												
S101	SPED		24.16	12.16	294										1												
F101	Speech		24	12	288										1												
F104	Nurse																										
F108	Main Office																										
B110	CLASSROOM	K	24	31.5	756		1																				
B112	CLASSROOM	K	23.33	36	840		1																				
B113	CLASSROOM	K	26.5	23.5	623		1																				
B115	CLASSROOM	K	26.5	31	822		1																				
B101	PPT Room																										
B101A	PPT Room																										
B101B	PPT Room																										
B102	Library		37.33	27	1,008																						
B103	ESL																	1									
B106	Gym		61.75	43.67	2,697																						
B107	Custodian																										
						0	4	4	4	4	3	3	0	0	0	1	3	0	0	0	0						
						22	Current Classroom Count (PreK-5)																				

Kingsbury Elementary School						Available Room Capacity (Note: Available room capacity reflects classroom deployment as reported by school principals in February 2015 and as observed during site visits conducted during February-March 2015)																				
ROOM #	Room Type	Grade Level	Room Dimensions		Room Area (NSF)	Available Seats by Space	Pre-K	K	1	2	3	4	5	Shared	Science Rooms	World Language Rooms	Computer Labs	Special Ed Rooms				Bilingual	ESL	Art Rooms	Music Rooms	Specialty Rooms
			L	W														90% Utilization	SPED	BDLC	Essential Skills					
F109	CLASSROOM	1	34.5	23.5	811	23			23																	
F111	CLASSROOM	1	34	25	850	24			24																	
F112	CLASSROOM	1	29	25	725	21			21																	
F114	CLASSROOM	1	39	25	975	27			27																	
F102	CLASSROOM	2	28	25	700	20				20																
F105	CLASSROOM	2	28	25	700	20				20																
F107	CLASSROOM	2	28	25	700	20				20																
F106	CLASSROOM	2	28	25	700	20				20																
S102	CLASSROOM	3	28.16	25	704	20					20															
S103	CLASSROOM	3	28.25	25	706	20					20															
S106	CLASSROOM	3	28	25	700	20					20															
S108	CLASSROOM	3	28	25	700	20					20															
S107	CLASSROOM	4	28	25	700	20						20														
S110	CLASSROOM	4	28	25	700	20						20														
S111	CLASSROOM	4	28	25	700	20						20														
S115	CLASSROOM	5	34	25	850	24							24													
S116	CLASSROOM	5	36.75	24	882	25							25													
S117	CLASSROOM	5	34	23	782	22							22													
F103	Computer		28	25	700	14								14												
B111	Reading		26.5	12.67	336	9													9							
S101	SPED		24.16	12.16	294	8													8							
F101	Speech		24	12	288	8													8							
F104	Nurse																									
F108	Main Office																									
B110	CLASSROOM	K	24	31.5	756	15													15							
B112	CLASSROOM	K	23.33	36	840	17													17							
B113	CLASSROOM	K	26.5	23.5	623	13													13							
B115	CLASSROOM	K	26.5	31	822	16													16							
B101	PPT Room																									
B101A	PPT Room																									
B101B	PPT Room																									
B102	Library		37.33	27	1,008																					
B103	ESL																									
B106	Gym		61.75	43.67	2,697																					
B107	Custodian																									
							0	61	95	79	79	59	71	0	0	0	14	25	0	0	0	0	0	0		
						445	Available Capacity in Academic Classrooms (PreK-5)																			

Regan Elementary School																										
Available Room Capacity (Note: Available room capacity reflects classroom deployment as reported by school principals in February 2015 and as observed during site visits conducted during February-March 2015)																										
ROOM #	Room Type	Grade Level	Room Dimensions		Room Area (NSF)	Available Seats by Space	Pre-K	K	1	2	3	4	5	Shared	Science Rooms	World Language Rooms	Computer Labs	Special Ed Rooms				Bilingual	ESL	Art Rooms	Music Rooms	Specialty Rooms
			L	W			Utilization	SPED	BDLC	Essential Skills	Autistic															
S102	CLASSROOM	1	25.25	22.25	562	16			16																	
S101	CLASSROOM	1	25.25	31.5	795	23			23																	
S113	CLASSROOM	2	25.25	31.5	795	23				23																
S112	CLASSROOM	2	25.25	31.5	795	23				23																
S111	CLASSROOM	3	25.25	31.5	795	23					23															
S109	CLASSROOM	3	25.25	31.5	795	23					23															
S106	CLASSROOM	4	25.25	31.5	795	23						23														
S105	CLASSROOM	4	25.25	31.5	795	23												23								
S108	CLASSROOM	5	25.25	31.5	795	23						23														
S107	CLASSROOM	5	25.25	31.5	795	23							23													
F107	CLASSROOM	K	22.25	25.25	562	11		11																		
F106	CLASSROOM	K	21.5	38	817	16		16																		
S110	COMPUTER	k-5	25.25	31.5	795	16								16												
S103	SPED	k-5	28	22	616	17																				
	PPT	k-5	14.5	19.5	283																					
	SPED	k-5	10.25	9.5	97	3												3								
S104	TEACHERS ROOM																									
S114	LIBRARY		29.75	38	1,131																					
	Multi-Purpose (Gym/ Caf)																									
							0	27	39	45	45	23	45	0	0	0	16	25	0	0	0	0	0	0	0	
							223	Available Capacity in Academic Classrooms (PreK-5)																		

Sprague Elementary School																											
		Room Dimensions			Existing Room Inventory (Note: Inventory reflects classroom deployment as reported by school principals in February 2015 and as observed during site visits conducted during February-March 2015)																						
ROOM #	Room Type	Grade Level	L	W	Room Area (NSF)	Pre-K	K	1	2	3	4	5	Shared	Science Rooms	World Language Rooms	Comp Labs	Special Ed Rooms				Bilingual	ESL	Art Rooms	Music Rooms	Specialty Rooms		
																	SPED	BDLC	Essential Skills	Autistic							
F113	CLASSROOM	1	31.75	22.75	722			1																			
F115	CLASSROOM	1	31.75	22.75	722			1																			
F114	CLASSROOM	1	33.75	22.75	768			1																			
F109	CLASSROOM	1	19	31.25	594			1																			
F107	CLASSROOM	2	32	19.25	616				1																		
F103	CLASSROOM	2	29.75	24.75	736				1																		
F106	CLASSROOM	2	25	27.5	688				1																		
S116	CLASSROOM	3	24	34	816					1																	
S118	CLASSROOM	3	34	22.5	765					1																	
S119	CLASSROOM	3	31.75	22	699					1																	
S104	CLASSROOM	4	29	27.5	798						1																
S105	CLASSROOM	4	30	29.75	893						1																
S108	CLASSROOM	4	24.75	27.5	681						1																
S107	CLASSROOM	5	29.75	33.5	997							1															
S114	CLASSROOM	5	33.25	23.5	781							1															
F104	CLASSROOM	K	22.25	30.75	684		1																				
F102	CLASSROOM	K	29	25	725		1																				
F101A	CLASSROOM	K	33.25	32.25	1,072		1																				
F101B	CLASSROOM	K	33.5	33.75	1,131		1																				
F116	CLASSROOM	PRE-K	31.5	25.75	811	1	1																				
F118A	CLASSROOM YOUTH SERVICES	PRE-K	31.5	25.5	803	1																					
F117A	CLASSROOM YOUTH SERVICES	PRE-K	31.5	17.5	551																			1			
F117B	CLASSROOM YOUTH SERVICES	PRE-K	27.25	17	463																			1			
F118B	CLASSROOM YOUTH SERVICES	PRE-K	32	25.5	816	1																					
F120A	CLASSROOM YOUTH SERVICES	PRE-K			532																			1			
F120B	OFFICE YOUTH SERVICES	PRE-K			134																			1			
	TUTORS		24.5	12	294												1										
S101	READING		22.75	31	705												1										
S102	NURSE																										
S106	SPED RESOURCE		30.75	22.75	700												1										
S111	COMPUTER LAB		31.5	21	662												1										
S117	ESL / SPEECH		22.5	21.75	489															1							
S109	MUSIC		31.75	20.75	659																		1				
S115	ART	1-5	22.5	24.25	546																1						
F111	LIBRARY		35	24.5	858																						
	GYMNASIUM		96.25	70	6,738																						
						3	5	4	3	3	3	2	0	0	0	1	3	0	0	0	0	1	1	1	4		
						23	Current Classroom Count (PreK-5)																				

Sprague Elementary School																													
		Room Dimensions				Available Room Capacity (Note: Available room capacity reflects classroom deployment as reported by school principals in February 2015 and as observed during site visits conducted during February-March 2015)																							
ROOM #	Room Type	Grade Level	L	W	Room Area (NSF)	Available Seats by Space	Pre-K	K	1	2	3	4	5	Shared	Science Rooms	World Language Rooms	Computer Labs	Special Ed Rooms				Bilingual	ESL	Art Rooms	Music Rooms	Specialty Rooms			
						90%	Utilization										SPED	BDLC	Essential Skills	Autistic									
F113	CLASSROOM	1	31.75	22.75	722	21			21																				
F115	CLASSROOM	1	31.75	22.75	722	21			21																				
F114	CLASSROOM	1	33.75	22.75	768	22			22																				
F109	CLASSROOM	1	19	31.25	594	17			17																				
F107	CLASSROOM	2	32	19.25	616	17				17																			
F103	CLASSROOM	2	29.75	24.75	736	21				21																			
F106	CLASSROOM	2	25	27.5	688	19				19																			
S116	CLASSROOM	3	24	34	816	23					23																		
S118	CLASSROOM	3	34	22.5	765	22					22																		
S119	CLASSROOM	3	31.75	22	699	20					20																		
S104	CLASSROOM	4	29	27.5	798	23						23																	
S105	CLASSROOM	4	30	29.75	893	25						25																	
S108	CLASSROOM	4	24.75	27.5	681	19					19																		
S107	CLASSROOM	5	29.75	33.5	997	28							28																
S114	CLASSROOM	5	33.25	23.5	781	22							22																
F104	CLASSROOM	K	22.25	30.75	684	14		14																					
F102	CLASSROOM	K	29	25	725	14		14																					
F101A	CLASSROOM	K	33.25	32.25	1,072	22		22																					
F101B	CLASSROOM	K	33.5	33.75	1,131	23		23																					
F116	CLASSROOM	PRE-K	31.5	25.75	811	14	14																						
F118A	CLASSROOM YOUTH SERVICES	PRE-K	31.5	25.5	803	14	14																						
F117A	CLASSROOM YOUTH SERVICES	PRE-K	31.5	17.5	551	9																			9				
F117B	CLASSROOM YOUTH SERVICES	PRE-K	27.25	17	463	7																			7				
F118B	CLASSROOM YOUTH SERVICES	PRE-K	32	25.5	816	14	14																						
F120A	CLASSROOM YOUTH SERVICES	PRE-K			532																				0				
F120B	OFFICE YOUTH SERVICES	PRE-K			134																				0				
	TUTORS		24.5	12	294	8												8											
S101	READING		22.75	31	705	20												20											
S102	NURSE																												
S106	SPED RESOURCE		30.75	22.75	700	20												20											
S111	COMPUTER LAB		31.5	21	662	14											14												
S117	ESL / SPEECH		22.5	21.75	489	14															14								
S109	MUSIC		31.75	20.75	659	16																	16						
S115	ART	1-5	22.5	24.25	546	11																11							
F111	LIBRARY		35	24.5	858																								
	GYMNASIUM		96.25	70	6,738																								
							41	72	80	57	65	67	50	0	0	0	14	48	0	0	0	0	14	11	16	16			
							430	Available Capacity in Academic Classrooms (PreK-5)																					

Tinker Elementary School																																		
		Room Dimensions				Existing Room Inventory (Note: Inventory reflects classroom deployment as reported by school principals in February 2015 and as observed during site visits conducted during February-March 2015)																												
ROOM #	Room Type	Grade Level	L	W	Room Area (NSF)	Pre-K	K	1	2	3	4	5	Shared	Science Rooms	World Language Rooms	Computer Labs	Special Ed Rooms				Bilingual	ESL	Art Rooms	Music Rooms	Specialty Rooms									
																	SPED	BDLC	Essential Skills	Autistic														
F109	CLASSROOM	1	24.75	28	693			1																										
F111	CLASSROOM	1	28	28	784			1																										
F113	CLASSROOM	1	28	28	784			1																										
F114	CLASSROOM	1	28	28	784			1																										
F104	CLASSROOM	2	24.75	28	693				1																									
F107	CLASSROOM	2	25	28	700				1																									
F101	CLASSROOM	2	28	28	784				1																									
F103	CLASSROOM	2	28	28	784				1																									
S109	CLASSROOM	3	24.75	27.75	687					1																								
S110	CLASSROOM	3	24.75	28	693					1																								
S112	CLASSROOM	3	24.75	28	693					1																								
S113	CLASSROOM	3	24.75	28	693					1																								
S114	CLASSROOM	4	24.75	27.75	687						1																							
S118	CLASSROOM	4	24.75	27.75	687						1																							
S117	CLASSROOM	4	24.75	28	693						1																							
S119	CLASSROOM	4	28.25	30.25	855						1																							
S105	CLASSROOM	5	24.75	27.75	687							1																						
S104	CLASSROOM	5	25	28	700							1																						
S102	CLASSROOM	5	28.25	30.25	855							1																						
B101A	CLASSROOM	K	20	28.75	575		1																											
B101B	CLASSROOM	K	20	28.75	575		1																											
F108	CLASSROOM	K	24.75	28	693		1																											
B104	CLASSROOM	K	40	40	1,600		1																											
B102	SPED RESOURCE	K, 1	25	13.5	338												1																	
B103	ESL	1																			1													
F106	TEACHERS ROOM																																	
F105	SPEECH		20.33	12	244												1																	
F110	READING		20	12	240												1																	
F115	SOCIAL WORKER																																	
S101	READING/ MATH SPECIALISTS		20.75	12	249																													
S106	CONFERENCE		20.75	12	249																													
S111	SPED RESURCE		26	12	312												1																	
S115	PSYCH		20.75	12	249												1																	
B112A	SPED RESOURCE		28	16	448												1																	
B112B	SPED RESOURCE		40	16	640												1																	
B106	Library		30	34.5	1,035																													
B108	Art		26.25	18.25	479																	1												
B109	Library		38.25	35.5	1,358																													
F112	Computer		24.75	25.25	625												1																	
	Gymnasium w/ stage		57.75	85.25	4,923																													
						0	4	4	4	4	4	3	0	0	0	1	7	0	0	0	0	1	1	0	0									
						23	Current Classroom Count (PreK-5)																											

Tinker Elementary School																												
Room Dimensions						Available Room Capacity (Note: Available room capacity reflects classroom deployment as reported by school principals in February 2015 and as observed during site visits conducted during February-March 2015)																						
ROOM #	Room Type	Grade Level	L	W	Room Area (NSF)	Available Seats by Space	Pre-K	K	1	2	3	4	5	Shared	Science Rooms	World Language Rooms	Computer Labs	Special Ed Rooms				Bilingual	ESL	Art Rooms	Music Rooms	Specialty Rooms		
						90%	Utilization							SPED	BDLC	Essential Skills	Autistic											
F109	CLASSROOM	1	24.75	28	693	20			20																			
F111	CLASSROOM	1	28	28	784	23			23																			
F113	CLASSROOM	1	28	28	784	23			23																			
F114	CLASSROOM	1	28	28	784	23			23																			
F104	CLASSROOM	2	24.75	28	693	20				20																		
F107	CLASSROOM	2	25	28	700	20				20																		
F101	CLASSROOM	2	28	28	784	23				23																		
F103	CLASSROOM	2	28	28	784	23				23																		
S109	CLASSROOM	3	24.75	27.75	687	19					19																	
S110	CLASSROOM	3	24.75	28	693	20					20																	
S112	CLASSROOM	3	24.75	28	693	20					20																	
S113	CLASSROOM	3	24.75	28	693	20					20																	
S114	CLASSROOM	4	24.75	27.75	687	19						19																
S118	CLASSROOM	4	24.75	27.75	687	19						19																
S117	CLASSROOM	4	24.75	28	693	20						20																
S119	CLASSROOM	4	28.25	30.25	855	24						24																
S105	CLASSROOM	5	24.75	27.75	687	19							19															
S104	CLASSROOM	5	25	28	700	20							20															
S102	CLASSROOM	5	28.25	30.25	855	24							24															
B101A	CLASSROOM	K	20	28.75	575	12			12																			
B101B	CLASSROOM	K	20	28.75	575	12			12																			
F108	CLASSROOM	K	24.75	28	693	14			14																			
B104	CLASSROOM	K	40	40	1,600	32			32																			
B102	SPED RESOURCE	K, 1	25	13.5	338	10												10				0						
B103	ESL	1				0																0						
F106	TEACHERS ROOM																											
F105	SPEECH		20.33	12	244	7												7										
F110	READING		20	12	240	7												7										
F115	SOCIAL WORKER																											
S101	READING/ MATH SPECIALISTS		20.75	12	249	7																						
S106	CONFERENCE		20.75	12	249																							
S111	SPED RESURCE		26	12	312	9												9										
S115	PSYCH		20.75	12	249													0										
B112A	SPED RESOURCE		28	16	448	13												13										
B112B	SPED RESOURCE		40	16	640	18												18										
B106	Library		30	34.5	1,035																							
B108	Art		26.25	18.25	479	10																	10					
B109	Library		38.25	35.5	1,358																							
F112	Computer		24.75	25.25	625	13											13											
	Gymnasium w/ stage		57.75	85.25	4,923																							
							0	69	87	85	78	82	63	0	0	0	13	64	0	0	0	0	0	10	0	0		
							464	Available Capacity in Academic Classrooms (PreK-5)																				

Walsh Elementary School																													
Existing Room Inventory (Note: Inventory reflects classroom deployment as reported by school principals in February 2015 and as observed during site visits conducted during February-March 2015)																													
ROOM #	Room Type	Grade Level	Room Dimensions		Room Area (NSF)	Classrooms										Shared	Science Rooms	World Language Rooms	Comp Labs	Special Ed Rooms				Bilingual	ESL	Art Rooms	Music Rooms	Specialty Rooms	
			L	W		Pre-K	K	1	2	3	4	5	SPED	BDLC	Essential Skills					Autistic									
F1	CLASSROOM	PRE-K	25	43	1,075	1																							
B7	CLASSROOM	K	24.5	41.75	1,023		1																						
B5	CLASSROOM	K	24.25	41.75	1,012		1																						
B3	CLASSROOM	K	24.5	27.5	674		1																						
F13	CLASSROOM	K	28	30	840		1																						
F12	CLASSROOM	1	27.75	30.25	839			1																					
F10	CLASSROOM	1	24.75	25.75	637			1																					
F11	CLASSROOM	1	24.75	28.25	699			1																					
F8	CLASSROOM	1	24.5	28.25	692			1																					
F6	CLASSROOM	2	24.25	28.25	685				1																				
F3	CLASSROOM	2	26.75	28	749				1																				
F4	CLASSROOM	2	24.25	28.5	691				1																				
F2	CLASSROOM	2	24.5	28	686				1																				
S2	CLASSROOM	3	24.5	28	686					1																			
S4	CLASSROOM	3	24.25	28.5	691					1																			
S7	CLASSROOM	3	25	28.25	706					1																			
S6	CLASSROOM	3	24	28.25	678					1																			
S8	CLASSROOM	4	24.25	28.25	685						1																		
S10	CLASSROOM	4	24.75	27.5	681						1																		
S11	CLASSROOM	4	22.25	25.5	567						1																		
S13	CLASSROOM	4	24.75	28.25	699						1																		
S17	CLASSROOM	5	21.75	29.25	636							1																	
S15	CLASSROOM	5	27.75	30	833							1																	
S12	CLASSROOM	5	27.25	30.25	824							1																	
S14	CLASSROOM	5	27.75	30.25	839							1																	
F5	SPED OFFICE	K,1,2	18.25	12.5	228												1												
F7	PPT																												
F9	NURSE																												
S1	ESL	K-5	21.25	11.75	250															1									
S3	READING	3,4,5	24.5	28	686												1												
S5	SPED; SPEECH	3,4,5	19.75	11.5	227												1												
S9	SPECIAL SERVICES	3,4,5	19.75	11.5	227												1												
B1	MUSIC/IN-HOUSE SUSPENTION		24.5	27	662																1								
B2	FAMILY RESDOURCE CENTER		23.75	26.75	635																1								
B3	OFFICE																												
	MEDIA CENTER	ALL	39	40	1,560																1								
B11	ART	ALL	28.25	42.75	1,208															1									
	GYMATORIA		83.6	59.8	4,999																								
						1	4	4	4	4	4	4	4	0	0	0	0	4	0	0	0	0	1	1	1	2			
						25	Current Classroom Count (PreK-5)																						

Walsh Elementary School						Available Room Capacity (Note: Available room capacity reflects classroom deployment as reported by school principals in February 2015 and as observed during site visits conducted during February-March 2015)																				
ROOM #	Room Type	Grade Level	Room Dimensions		Room Area (NSF)	Available Seats by Space	Pre-K	K	1	2	3	4	5	Shared	Science Rooms	World Language Rooms	Computer Labs	Special Ed Rooms				Bilingual	ESL	Art Rooms	Music Rooms	Specialty Rooms
			L	W			Utilization											SPED	BDLC	Essential Skills	Autistic					
F1	CLASSROOM	PRE-K	25	43	1,075	18	18																			
B7	CLASSROOM	K	24.5	41.75	1,023	21		21																		
B5	CLASSROOM	K	24.25	41.75	1,012	29		29																		
B3	CLASSROOM	K	24.5	27.5	674	19		19																		
F13	CLASSROOM	K	28	30	840	23		23																		
F12	CLASSROOM	1	27.75	30.25	839	23			23																	
F10	CLASSROOM	1	24.75	25.75	637	18			18																	
F11	CLASSROOM	1	24.75	28.25	699	20			20																	
F8	CLASSROOM	1	24.5	28.25	692	20			20																	
F6	CLASSROOM	2	24.25	28.25	685	19				19																
F3	CLASSROOM	2	26.75	28	749	21				21																
F4	CLASSROOM	2	24.25	28.5	691	20				20																
F2	CLASSROOM	2	24.5	28	686	19				19																
S2	CLASSROOM	3	24.5	28	686	19					19															
S4	CLASSROOM	3	24.25	28.5	691	20					20															
S7	CLASSROOM	3	25	28.25	706	20					20															
S6	CLASSROOM	3	24	28.25	678	19					19															
S8	CLASSROOM	4	24.25	28.25	685	19						19														
S10	CLASSROOM	4	24.75	27.5	681	19						19														
S11	CLASSROOM	4	22.25	25.5	567	16						16														
S13	CLASSROOM	4	24.75	28.25	699	20						20														
S17	CLASSROOM	5	21.75	29.25	636	18							18													
S15	CLASSROOM	5	27.75	30	833	23							23													
S12	CLASSROOM	5	27.25	30.25	824	23							23													
S14	CLASSROOM	5	27.75	30.25	839	23							23													
F5	SPED OFFICE	K,1,2	18.25	12.5	228	6												6								
F7	PPT																									
F9	NURSE																									
S1	ESL	K-5	21.25	11.75	250	7															7					
S3	READING	3,4,5	24.5	28	686	19												19								
S5	SPED; SPEECH	3,4,5	19.75	11.5	227	6												6								
S9	SPECIAL SERVICES	3,4,5	19.75	11.5	227	6												6								
B1	MUSIC/IN-HOUSE SUSPENTION		24.5	27	662	16																	16			
B2	FAMILY RESDOURCE CENTER		23.75	26.75	635																				0	
B3	OFFICE																									
	MEDIA CENTER	ALL	39	40	1,560																				0	
B11	ART	ALL	28.25	42.75	1,208	24																24				
	GYMATORIA		83.6	59.8	4,999																					
							18	92	81	78	77	74	88	0	0	0	0	38	0	0	0	0	7	24	16	0
							509 Available Capacity in Academic Classrooms (PreK-5)																			

Washington Elementary School																											
Existing Room Inventory (Note: Inventory reflects classroom deployment as reported by school principals in February 2015 and as observed during site visits conducted during February-March 2015)																											
ROOM #	Room Type	Grade Level	Room Dimensions		Room Area (NSF)	Classroom Count										Science Rooms	World Language Rooms	Computer Labs	Special Ed Rooms				Bilingual	ESL	Art Rooms	Music Rooms	Specialty Rooms
			L	W		Pre-K	K	1	2	3	4	5	Shared	SPED	BDLC				Essential Skills	Autistic							
103	CLASSROOM	Pre-K	18.25	37.75	689	1																					
104	CLASSROOM	K	21.5	29	624		1																				
105	CLASSROOM	K	24	22	528		1																				
112	CLASSROOM	K	29	30.25	877		1																				
107	CLASSROOM	1	25.5	28.25	720			1																			
114	CLASSROOM	1	25	28	700			1																			
116	CLASSROOM	1	25	28	700			1																			
214	CLASSROOM	2	24	22.25	534				1																		
216	CLASSROOM	2	21.5	29	624				1																		
203	CLASSROOM	3	21	32.25	677					1																	
204	CLASSROOM	3	21.5	29	624					1																	
207	CLASSROOM	3	32.25	26.5	855					1																	
209	CLASSROOM	4	25.5	28.25	720						1																
218-220	CLASSROOM	4	25.75	28	721						1																
211	CLASSROOM	5	25.5	28	714							1															
222	CLASSROOM	5	25.75	28.25	727							1															
109	COMPUTER LAB		25.25	28	707									1													
	GYMATERIA		58.25	41.75	2,432																	1					
B102	ART		24.6	30.6	753																1						
B103	LIBRARY		28	48	1,344																	1					
111	TEACHERS ROOM		12	28	336																						
213	NURSE				0																						
101	OFFICE		28	32	896																						
106	READING		13.5	15.25	206										1												
202	OFFICE/ ESL				144															1							
205	SPED				432										1												
						1	3	3	2	3	2	2	0	0	0	1	2	0	0	0	0	1	1	0	2		
						16	Current Classroom Count (PreK-5)																				

Washington Elementary School						Available Room Capacity (Note: Available room capacity reflects classroom deployment as reported by school principals in February 2015 and as observed during site visits conducted during February-March 2015)																				
ROOM #	Room Type	Grade Level	Room Dimensions		Room Area (NSF)	Available Seats by Space	Pre-K	K	1	2	3	4	5	Shared	Science Rooms	World Language Rooms	Computer Labs	Special Ed Rooms				Bilingual	ESL	Art Rooms	Music Rooms	Specialty Rooms
			L	W			Utilization										SPED	BDLC	Essential Skills	Autistic						
103	CLASSROOM	Pre-K	18.25	37.75	689	12	12																			
104	CLASSROOM	K	21.5	29	624	13		13																		
105	CLASSROOM	K	24	22	528	11		11																		
112	CLASSROOM	K	29	30.25	877	17		17																		
107	CLASSROOM	1	25.5	28.25	720	21			21																	
114	CLASSROOM	1	25	28	700	20																				
116	CLASSROOM	1	25	28	700	20			20																	
214	CLASSROOM	2	24	22.25	534	15				15																
216	CLASSROOM	2	21.5	29	624	17				17																
203	CLASSROOM	3	21	32.25	677	19					19															
204	CLASSROOM	3	21.5	29	624	17					17															
207	CLASSROOM	3	32.25	26.5	855	24					24															
209	CLASSROOM	4	25.5	28.25	720	21						21														
218-220	CLASSROOM	4	25.75	28	721	21						21														
211	CLASSROOM	5	25.5	28	714	20							20													
222	CLASSROOM	5	25.75	28.25	727	21							21													
109	COMPUTER LAB		25.25	28	707	14										14										
	GYMATERIA		58.25	41.75	2,432																			0	0	
B102	ART		24.6	30.6	753																		0		0	
B103	LIBRARY		28	48	1,344																				0	
111	TEACHERS ROOM		12	28	336																					
213	NURSE				0																					
101	OFFICE		28	32	896																					
106	READING		13.5	15.25	206	5											5									
202	OFFICE/ ESL				144																	0				
205	SPED				432	13											13									
							12	41	60	32	60	41	41	0	0	0	14	18	0	0	0	0	0	0	0	
							287	Available Capacity in Academic Classrooms (PreK-5)																		

Wendell Cross Elementary School																															
Existing Room Inventory (Note: Inventory reflects classroom deployment as reported by school principals in February 2015 and as observed during site visits conducted during February-March 2015)																															
ROOM #	Room Type	Grade Level	Room Dimensions		Room Area (NSF)	Classroom Counts										Science Rooms	World Language Rooms	Computer Labs	Special Ed Rooms				Bilingual	ESL	Art Rooms	Music Rooms	Specialty Rooms				
			L	W		Pre-K	K	1	2	3	4	5	Shared	SPED	BDLC				Essential Skills	Autistic											
F118	CLASSROOM	Pre-K	28	32	896	1																									
F116	CLASSROOM	K	28	32	896		1																								
F109	CLASSROOM	K	40	32	1,280		1																								
F101	CLASSROOM	K	35	32	1,120		1																								
F107	CLASSROOM	K	28	32	896		1																								
F103	CLASSROOM	1	28	32	896			1																							
F105	CLASSROOM	1	28	32	896			1																							
F110	CLASSROOM	1	28	32	896			1																							
F112	CLASSROOM	2	28	32	896				1																						
F114	CLASSROOM	2	28	32	896				1																						
F111	CLASSROOM	3	28	32	896					1																					
F113	CLASSROOM	3	28	32	896					1																					
B106	CLASSROOM	4	28	32	896						1																				
B107	CLASSROOM	4	28	32	896						1																				
B101	CLASSROOM	5	28	32	896							1																			
B102	CLASSROOM	5	28	32	896							1																			
	GYMATERIA				0																										
	STAGE																														
F100	LIBRARY				0																										
B103	SPED		13	19.25	250												1														
B104	SPEECH		14.75	16.5	243												1														
B105A	SPED READING		27	18.75	506												1														
B105B	SPED JUST FOR ME		13	18.75	244												1														
B105C	SPED		17.5	15.75	276												1														
						1	4	3	2	2	2	2	0	0	0	0	5	0	0	0	0	0									
						16	Current Classroom Count (PreK-5)																								

Wendell Cross Elementary School																																		
Available Room Capacity (Note: Available room capacity reflects classroom deployment as reported by school principals in February 2015 and as observed during site visits conducted during February-March 2015)																																		
ROOM #	Room Type	Grade Level	Room Dimensions		Room Area (NSF)	Available Seats by Space	Pre-K	K	1	2	3	4	5	Shared	Science Rooms	World Language Rooms	Computer Labs	Special Ed Rooms				Bilingual	ESL	Art Rooms	Music Rooms	Specialty Rooms								
			L	W														SPED	BDLC	Essential Skills	Autistic													
						90%	Utilization																											
F118	CLASSROOM	Pre-K	28	32	896	14	14																											
F116	CLASSROOM	K	28	32	896	18		18																										
F109	CLASSROOM	K	40	32	1,280	25		25																										
F101	CLASSROOM	K	35	32	1,120	23		23																										
F107	CLASSROOM	K	28	32	896	18		18																										
F103	CLASSROOM	1	28	32	896	25			25																									
F105	CLASSROOM	1	28	32	896	25			25																									
F110	CLASSROOM	1	28	32	896	25			25																									
F112	CLASSROOM	2	28	32	896	25				25																								
F114	CLASSROOM	2	28	32	896	25				25																								
F111	CLASSROOM	3	28	32	896	25					25																							
F113	CLASSROOM	3	28	32	896	25					25																							
B106	CLASSROOM	4	28	32	896	25						25																						
B107	CLASSROOM	4	28	32	896	25							25																					
B101	CLASSROOM	5	28	32	896	25								25																				
B102	CLASSROOM	5	28	32	896	25								25																				
	GYMATERIA				0																													
	STAGE																																	
F100	LIBRARY				0																													
B103	SPED		13	19.25	250	7												7																
B104	SPEECH		14.75	16.5	243	7												7																
B105A	SPED READING		27	18.75	506	14												14																
B105B	SPED JUST FOR ME		13	18.75	244	7												7																
B105C	SPED		17.5	15.75	276	8												8																
							14	84	76	50	50	50	50	0	0	0	0	44	0	0	0	0	0	0	0									
							375	Available Capacity in Academic Classrooms (PreK-5)																										

Woodrow Wilson Elementary School																									
Room Dimensions				Existing Room Inventory (Note: Inventory reflects classroom deployment as reported by school principals in February 2015 and as observed during site visits conducted during February-March 2015)																					
ROOM #	Room Type	Grade Level	L	W	Room Area (NSF)	Pre-K	K	1	2	3	4	5	Shared	Science Rooms	World Language Rooms	Comp Labs	Special Ed Rooms				Bilingual	ESL	Art Rooms	Music Rooms	Specialty Rooms
																	SPED	BDLC	Essential Skills	Autistic					
	CLASSROOM	PRE-K	25.00	28.25	706	1																			
	CLASSROOM	PRE-K	25.00	28.25	706	1																			
	CLASSROOM	PRE-K	25.00	28.25	706	1																			
	CLASSROOM	PRE-K	26.00	30.75	800	1																			
	CLASSROOM	K	25.25	27.5	694		1																		
	CLASSROOM	K	25.25	27.5	694		1																		
	CLASSROOM	K	25.25	27.5	694		1																		
	CLASSROOM	K	25.25	27.5	694		1																		
	CLASSROOM	1	25.00	28.25	706			1																	
	CLASSROOM	1	25.00	28.25	706			1																	
	CLASSROOM	1	25.00	28.25	706			1																	
	CLASSROOM	2	25.25	28	707				1																
	CLASSROOM	2	25.00	28	700				1																
	CLASSROOM	3	25.00	28	700					1															
33	CLASSROOM	3	25.00	28	700					1															
	CLASSROOM	4	26.50	30	795						1														
	CLASSROOM	4	27.75	28.25	784						1														
	CLASSROOM	5	28.00	28.25	791							1													
	CLASSROOM	5	26.50	29.25	775							1													
Portable	CHILD DEV	K	25.25	27.5	694														1						
	BDLC	6	31.00	34.25	1,062																				
	BDLC A	2-5	23.50	18.75	441																				
	BDLC B		25.50	18.75	478																				
	PARENT ROOM		24.00	18.75	450																				
	FACILITATOR		24.00	18.75	450																				
	PT/OT		24.50	15	368																			1	
	COMPUTER	K-5	26.60	30.6	814											1									
	ESL	K-5	28.00	16	448																	1			
	PPT / OFFICE																								
	READING	K-5	24.75	11.75	291																				
34	ENRICHMENT	K-5	24.25	27	655																				
	SPED CLASSROOM	K-5	28.00	28	784																				
35	SPED SPEECH	K-5	24.25	12	291																				
37	SPED TITLE I	K-5	25.25	14	354																				
38	SPED TUTORS	K-5	25.25	14	354																				
	PSYCHOLOGIST		25.00	10	250																				
	SOCIAL WORKER		25.00	10	250																				
	TEACHERS ROOM		25.25	14	354																				
	FAM RESOURCES				0																				
	GYMNASIUM		52.00	69.75	3,627									1										1	
	CAFETERIA		28.00	36.5	1,022									1											
	ART		28.00	28	784																		1		
	MUSIC		28.00	20	560																			1	
	LIBRARY		28.00	28	784									1											
						4	5	3	2	2	2	2	3	0	0	1	8	5	0	0	0	1	1	1	2
						25	Current Classroom Count (PreK-5 + BDLC)																		

Waterbury Public Schools - PreK-8 Schools - Current Seat Count and Capacity Summary

		Existing Room Inventory (Note: Inventory reflects classroom deployment as reported by school principals in February 2015 and as observed during site visits conducted during February-March 2015)																							
School Name	Current Classroom Count	Pre-K	K	1	2	3	4	5	6	7	8	Shared	Science Rooms	World Language Rooms	Comp Labs	Special Education			Bilingual	ESL	Art Rooms	Music Rooms	Specialty Rooms		
																Special Ed	BDLC	Essential Skills	Autistic						
Carrington Elementary School (PreK-8)	No. of Rooms*	23	2	2	2	3	2	3	2	2	2	0	1	1	0	2	9	0	2	0	0	0	2	4	4
Duggan Elementary School (PreK-8)	No. of Rooms**	22	2	2	2	2	2	2	2	2	1	1	2	1	0	1	9	2	0	0	0	1	1	2	1
Gilmartin Elementary School (PreK-8)	No. of Rooms**	21	2	2	2	2	2	2	2	2	2	2	0	1	0	2	6	1	0	0	0	0	1	1	3
Reed Elementary School (PreK-8)	No. of Rooms*	22	2	2	2	2	2	2	2	2	2	2	0	1	0	1	5	0	2	0	1	1	1	1	2
			8	8	8	9	8	9	8	8	7	5	3	4	0	6	29	3	4	0	1	2	5	8	10

*PreK-8 + Shared + Essential Skills

**PreK-8 + Shared + BDLC

		Available Room Capacity (Note: Available room capacity reflects classroom deployment as reported by school principals in February 2015 and as observed during site visits conducted during February-March 2015)																								
School Name	Current Classroom Count	Available Seats by Space	Pre-K	K	1	2	3	4	5	6	7	8	Shared	Science Rooms	World Language Rooms	Computer Labs	Special Education				Bilingual	ESL	Art Rooms	Music Rooms	Specialty Rooms	
																	Special Ed	BDLC	Essential Skills	Autistic						
Carrington Elementary School (PreK-8)	No. of Rooms*	23	434	29	36	43	61	42	64	46	42	43	0	16	22	0	34	89	0	12	0	0	0	31	88	62
Duggan Elementary School (PreK-8)	No. of Rooms**	22	408	29	34	38	47	41	41	41	41	21	21	41	17	0	13	62	12	0	0	0	7	17	28	19
Gilmartin Elementary School (PreK-8)	No. of Rooms**	21	465	34	43	47	47	46	45	47	47	49	49	0	0	0	14	91	12	0	0	0	0	25	33	
Reed Elementary School (PreK-8)	No. of Rooms*	22	517	32	38	54	54	52	52	52	52	52	54	0	18	0	19	37	0	24	0	14	7	22	28	51
			124	151	182	208	182	203	186	183	165	123	58	57	0	80	279	24	36	0	14	14	70	169	166	

*PreK-8 + Shared + Essential Skills

**PreK-8 + Shared + BDLC

Carrington Elementary School (PreK-8)						Existing Room Inventory (Note: Inventory reflects classroom deployment as reported by school principals in February 2015 and as observed during site visits conducted during February-March 2015)																						
ROOM #	Room Type	Grade Level	Room Dimensions		Room Area (NSF)	Pre-K	K	1	2	3	4	5	6	7	8	Shared	Science Rooms	World Language Rooms	Computer Labs	Special Education				Bilingual	ESL	Art Rooms	Music Rooms	Specialty Rooms
			L	W		Pre-K	K	1	2	3	4	5	6	7	8	Shared	Science Rooms	World Language Rooms	Computer Labs	Special Ed	BDLC	Essential Skills	Autistic	Bilingual	ESL	Art Rooms	Music Rooms	Specialty Rooms
B118		1	23.75	32.5	772			1																				
B117		1	23.5	32.5	764			1																				
B225		2	31.5	23.25	732				1																			
B223		2	30.75	23.25	715				1																			
B216		2	29.25	24.75	724				1																			
B221		3	23.25	32.75	761					1																		
B220		3	24.5	30.25	741					1																		
B218		4	24.5	30.25	741						1																	
B219		4	23.25	32.5	756						1																	
B217		4	23.25	33.25	773						1																	
A209		5	29.25	28	819							1																
A207		5	27.25	29	790							1																
B213		6	26.75	29.5	789								1															
B211		6	20.75	33.5	695								1															
B208	Math	7	24.75	30.5	755									1														
A206		7	25	30.25	756									1														
B212	History	5,6,7	23	24.75	569										1													
B116		K	28	32	896		1																					
B115		K	27.5	32.5	894		1																					
B114		Pre-K	29.75	27.75	826	1																						
B113		Pre-K	32.75	28	917	1																						
B107	Art		21.25	27.5	584																			1				
B104	Art		41.75	23	960																			1				
	Cafetorium		64.5	38	2,451																							
C104	Computer Lab/ Foreign Lang.		39.25	26.25	1,030													1										
B210	Computer		28	24.75	693													1										
A160	Gymnasium		86.75	59.75	5,183																							
C101/C102	Library/Media				2,141																							
A108	Motor Skill		28.5	32.25	919															1								
B112	Multi Use		39.25	18.75	736																					1		
A113	Music		28	32	896																				1			
A114	Music		24.75	27.75	687																				1			
C120	Nurse				0																							
B109	Reading				340															1								
B110	Reading				380															1								
B224	Reading		18.25	36.5	666															1								
B215	Reading		21.25	18.75	398															1								
B214	Reading		18.5	22.75	421															1								
A200	Science		42.75	30.75	1,315												1											
C102	Computer Lab		25.25	27.25	688																							
C106	Essential Skills Classroom		27	32.25	871																				1			
C106A	Essential Skills Resource Room		30.75	13	400																				1			
C118	Speech				120															1								
C119	SPED Small Group Pullout				100															1								
C121	Studies (Family Resource)		22	34.75	765																						1	
	Keyboard & Instruments				720																				1			
A114	Music Classroom				1,000																				1			
B103	Tech Ed		28	36.75	1,029																						1	
B100	Tech Ed				700																						1	
B222	SPED (Resource)		13.25	15.5	205															1								
						2	2	2	3	2	3	2	2	2	0	1	1	0	2	9	0	2	0	0	0	2	4	4
						23	Current Classroom Count (PreK-8 + Shared + Essential Skills)																					

Carrington Elementary School (PreK-8)						Available Room Capacity (Note: Available room capacity reflects classroom deployment as reported by school principals in February 2015 and as observed during site visits conducted during February-March 2015)																							
ROOM #	Room Type	Grade Level	Room Dimensions		Room Area (NSF)	Available Seats by Space	Pre-K	K	1	2	3	4	5	6	7	8	Shared	Science Rooms	World Language Rooms	Computer Labs	Special Education				Bilingual	ESL	Art Rooms	Music Rooms	Specialty Rooms
			L	W			90% Utilization	Pre-K	K	1	2	3	4	5	6	7	8	Shared	Science Rooms	World Language Rooms	Computer Labs	Special Ed	BDLC	Essential Skills	Autistic	Bilingual	ESL	Art Rooms	Music Rooms
B118		1	23.75	32.5	772	22			22																				
B117		1	23.5	32.5	764	22			22																				
B225		2	31.5	23.25	732	21				21																			
B223		2	30.75	23.25	715	20				20																			
B216		2	29.25	24.75	724	20				20																			
B221		3	23.25	32.75	761	22					22																		
B220		3	24.5	30.25	741	21					21																		
B218		4	24.5	30.25	741	21						21																	
B219		4	23.25	32.5	756	22						22																	
B217		4	23.25	33.25	773	22						22																	
A209		5	29.25	28	819	23							23																
A207		5	27.25	29	790	23							23																
B213		6	26.75	29.5	789	23								23															
B211		6	20.75	33.5	695	20								20															
B208	Math	7	24.75	30.5	755	22									22														
A206		7	25	30.25	756	22									22														
B212	History	5,6,7	23	24.75	569	16										16													
B116		K	28	32	896	18																							
B115		K	27.5	32.5	894	18																							
B114		Pre-K	29.75	27.75	826	14																							
B113		Pre-K	32.75	28	917	15																							
B107	Art		21.25	27.5	584	12																				12			
B104	Art		41.75	23	960	19																				19			
	Cafetorium		64.5	38	2,451																								
C104	Computer Lab/ Foreign Lang.		39.25	26.25	1,030	21														21									
B210	Computer		28	24.75	693	14														14									
A160	Gymnasium		86.75	59.75	5,183																								
C101/C102	Library/Media				2,141																								
A108	Motor Skill		28.5	32.25	919	15															15								
B112	Multi Use		39.25	18.75	736	12																					12		
A113	Music		28	32	896	23																					23		
A114	Music		24.75	27.75	687	17																					17		
C120	Nurse				0																								
B109	Reading				340	10															10								
B110	Reading				380	11															11								
B224	Reading		18.25	36.5	666	19															19								
B215	Reading		21.25	18.75	398	11															11								
B214	Reading		18.5	22.75	421	12															12								
A200	Science		42.75	30.75	1,315	22																							
C102	Computer Lab		25.25	27.25	688																								
C106	Essential Skills Classroom		27	32.25	871	12																							
C106A	Essential Skills Resource Room		30.75	13	400																								
C118	Speech				120	4															4								
C119	SPED Small Group Pullout				100	3															3								
C121	Studies (Family Resource)		22	34.75	765	22																						22	
	Keyboard & Instruments				720	21																							
A114	Music Classroom				1,000	28																					21		
B103	Tech Ed		28	36.75	1,029	17																					28		
B100	Tech Ed				700	12																						12	
B222	SPED (Resource)		13.25	15.5	205	5															5								
						29	36	43	61	42	64	46	42	43	0	16	22	0	34	89	0	12	0	0	0	31	88	62	
						434	Available Capacity in Academic Classrooms (PreK-8 + Shared +Essential Skills)																						

Duggan Elementary School (PreK-8)																													
					Existing Room Inventory (Note: Inventory reflects classroom deployment as reported by school principals in February 2015 and as observed during site visits conducted during February-March 2015)																								
ROOM #	Room Type	Grade Level	Room Dimensions		Room Area (NSF)	Existing Room Inventory												Science Rooms	World Language Rooms	Computer Labs	Special Education				Bilingual	ESL	Art Rooms	Music Rooms	Specialty Rooms
			L	W		Pre-K	K	1	2	3	4	5	6	7	8	Shared	Special Ed				BDLC	Essential Skills	Autistic						
315	Classroom	Pre-K			874	1																							
316	Classroom	Pre-K			874	1																							
317	Classroom	K			874		1																						
318	Classroom	K			874		1																						
332	Classroom	1			680			1																					
331	Classroom	1			680			1																					
342	Classroom	2			840				1																				
343	Classroom	2			840				1																				
346	Classroom	3			750					1																			
347	Classroom	3			750					1																			
348	Classroom	4			750						1																		
349	Classroom	4			750						1																		
211	Classroom	5			750							1																	
217	Classroom	5			750							1																	
219	Math / Science	6			750								1																
220	Reading/Lib Arts	6			750									1															
123	Reading/Lib Arts	7			750										1														
119	Reading/Lib Arts	8			750											1													
218	Social Studies	6,7,8			750												1												
120	Math	7,8			750												1												
115	Science Lab	6,7,8	30	35.5	1,065												1												
116	SPED Tutor				240														1										
118	SPED	6,7,8			240															1									
203	Reading (off Media Center)				240																1								
	ESL (off Media Center)				270																1								
215	SPED	4,5			240																1								
216	Reading				240																1								
221	Resource Room				256																1								
344	SPED	K-2			240																1								
345	SPED	3,4			240																1								
336	CBL (BDLC)		35.5	23.25	825																1								
337	BDLC Resource				195																1								
	Math (off Media Center)				150																1								
	Cafetorium		46.25	63.5	2,937																								
334	Electronic Music				252																1								
	Gymnasium		92	66.75	6,141																								
200	Library				2,480																								
335	Music		30.25	28.5	862																1								
122	Family Consumer Science/Tech Ed		30	35.5	1,065																1								
212	Art				840																1								
201	Computer Lab				630																1								
124	Faculty Workroom				417																								
350	Faculty Workroom				417																								
						2	2	2	2	2	2	2	2	1	1	2	1	0	1	9	2	0	0	0	1	1	2	1	
						22	Current Classroom Count (PreK-8 + Shared + BDLC)																						

Duggan Elementary School (PreK-8)						Available Room Capacity (Note: Available room capacity reflects classroom deployment as reported by school principals in February 2015 and as observed during site visits conducted during February-March 2015)																							
ROOM #	Room Type	Grade Level	Room Dimensions		Room Area (NSF)	Available Seats by Space	Pre-K	K	1	2	3	4	5	6	7	8	Shared	Science Rooms	World Language Rooms	Computer Labs	Special Education				Bilingual	ESL	Art Rooms	Music Rooms	Specialty Rooms
			L	W			Utilization	Special Ed	BDLC	Essential Skills	Autistic																		
315	Classroom	Pre-K			874	14	14																						
316	Classroom	Pre-K			874	14	14																						
317	Classroom	K			874	17		17																					
318	Classroom	K			874	17		17																					
332	Classroom	1			680	19			19																				
331	Classroom	1			680	19			19																				
342	Classroom	2			840	23				23																			
343	Classroom	2			840	23				23																			
346	Classroom	3			750	21					21																		
347	Classroom	3			750	21					21																		
348	Classroom	4			750	21						21																	
349	Classroom	4			750	21						21																	
211	Classroom	5			750	21							21																
217	Classroom	5			750	21								21															
219	Math / Science	6			750	21									21														
220	Reading/Lib Arts	6			750	21										21													
123	Reading/Lib Arts	7			750	21																							
119	Reading/Lib Arts	8			750	21											21												
218	Social Studies	6,7,8			750	21												21											
120	Math	7,8			750	21													21										
115	Science Lab	6,7,8	30	35.5	1,065	17																							
116	SPED Tutor				240	7																							
118	SPED	6,7,8			240	7																							
203	Reading (off Media Center)				240	7																							
	ESL (off Media Center)				270	7																							
215	SPED	4,5			240	7																							
216	Reading				240	7																							
221	Resource Room				256	7																							
344	SPED	K-2			240	7																							
345	SPED	3,4			240	7																							
336	CBL (BDLC)		35.5	23.25	825	12																							
337	BDLC Resource				195																								
	Math (off Media Center)				150	5																							
	Cafetorium		46.25	63.5	2,937																								
334	Electronic Music				252	6																							
	Gymnasium		92	66.75	6,141																								
200	Library				2,480																								
335	Music		30.25	28.5	862	22																							
122	Family Consumer Science/Tech Ed		30	35.5	1,065	19																							
212	Art				840	17																							
201	Computer Lab				630	13															13								
124	Faculty Workroom				417																								
350	Faculty Workroom				417	12																							
							29	34	38	47	41	41	41	41	21	21	41	17	0	13	62	12	0	0	0	7	17	28	19
							408	Available Capacity in Academic Classrooms (PreK-8 + Shared + BDLC)																					

Gilmartin Elementary School (PreK-8)						Existing Room Inventory <small>(Note: Inventory reflects classroom deployment as reported by school principals in February 2015 and as observed during site visits conducted during February-March 2015)</small>																																							
ROOM #	Room Type	Grade Level	Room Dimensions		Room Area (NSF)															Science Rooms	World Language Rooms	Computer Labs	Special Education				Bilingual	ESL	Art Rooms	Music Rooms	Specialty Rooms														
			L	W		Pre-K	K	1	2	3	4	5	6	7	8	shared	Special Ed	BDLC	Essential Skills				Autistic																						
1057	Classroom	Pre-K	38.5	27.5	1,059	1																																							
1062	Classroom	Pre-K	38.5	27.5	1,059	1																																							
1053	Classroom	K	38.5	27.5	1,059		1																																						
1056	Classroom	K	38.5	27.5	1,059		1																																						
1046	Classroom	1	30	27.5	825			1																																					
1049	Classroom	1	30	27.5	825			1																																					
1044	Classroom	2	30	27.5	825				1																																				
1045	Classroom	2	30	27.5	825				1																																				
2031	Classroom	3			821					1																																			
2032	Classroom	3			815					1																																			
2033	Classroom	4			785						1																																		
2034	Classroom	4			788						1																																		
2025	Classroom	5	30	27.5	825							1																																	
2026	Classroom	5	30	27.5	825							1																																	
2023	Classroom	6	30	27.5	825								1																																
2024	Classroom	6	30	27.5	825								1																																
2014	Classroom	7	31	27.5	853									1																															
2016	Classroom	7	31	27.5	853										1																														
2012	Classroom	8	31	27.5	853											1																													
2013	Classroom	8	31	27.5	853											1																													
1022	Reading				393																	1																							
1038	SPED Resource				288																	1																							
1051	Reading				504																	1																							
1035	ESL				498																	1																							
1036	SPED Classroom				882																	1																							
1124	BDLC																																												
2037	SPED Classroom				631																	1																							
1039	Computer Lab				722																	1																							
1041	Library/ Media Center				2,264																																								
1119	Music				907																																								
1126	Family Resource Room				573																																								
2003	Science	6,7,8			1,238																	1																							
2004	Family Consumer Science	6,7,8			1,000																																								
2005	Foreign Lang / Computer Lab	6,7,8			778																	1																							
2005	Tech Ed	6,7,8			1,062																																								
2021	Art				1,290																																								
						2	2	2	2	2	2	2	2	2	2	2	0	1	0	2	6	1	0	0	0	0	1	1										3							
						21	Current Classroom Count (PreK-8 + Shared + BDLC)																																						

Gilmartin Elementary School (PreK-8)						Available Room Capacity (Note: Available room capacity reflects classroom deployment as reported by school principals in February 2015 and as observed during site visits conducted during February-March 2015)																							
ROOM #	Room Type	Grade Level	Room Dimensions		Room Area (NSF)	Available Seats by Space	Pre-K	K	1	2	3	4	5	6	7	8	shared	Science Rooms	World Language Rooms	Computer Labs	Special Education				Bilingual	ESL	Art Rooms	Music Rooms	Specialty Rooms
			L	W			90% Utilization																						
			Pre-K	K			1	2	3	4	5	6	7	8	shared	Science Rooms	World Language Rooms	Computer Labs	Special Ed	BDLC	Essential Skills	Autistic	Bilingual	ESL	Art Rooms	Music Rooms	Specialty Rooms		
1057	Classroom	Pre-K	38.5	27.5	1,059	17	17																						
1062	Classroom	Pre-K	38.5	27.5	1,059	17	17																						
1053	Classroom	K	38.5	27.5	1,059	22		22																					
1056	Classroom	K	38.5	27.5	1,059	22		22																					
1046	Classroom	1	30	27.5	825	23			23																				
1049	Classroom	1	30	27.5	825	23			23																				
1044	Classroom	2	30	27.5	825	23				23																			
1045	Classroom	2	30	27.5	825	23				23																			
2031	Classroom	3			821	23					23																		
2032	Classroom	3			815	23					23																		
2033	Classroom	4			785	23						23																	
2034	Classroom	4			788	23						23																	
2025	Classroom	5	30	27.5	825	23							23																
2026	Classroom	5	30	27.5	825	23								23															
2023	Classroom	6	30	27.5	825	23									23														
2024	Classroom	6	30	27.5	825	23									23														
2014	Classroom	7	31	27.5	853	24										24													
2016	Classroom	7	31	27.5	853	24										24													
2012	Classroom	8	31	27.5	853	24											24												
2013	Classroom	8	31	27.5	853	24																							
1022	Reading				393	11														11									
1038	SPED Resource				288	8														8									
1051	Reading				504	14														14									
1035	ESL				498	14														14									
1036	SPED Classroom				882	25														25									
1124	BDLC					12															12								
2037	SPED Classroom				631	18															18								
1039	Computer Lab				722	14													14										
1041	Library/ Media Center				2,264																								
1119	Music				907	25																				25			
1126	Family Resource Room				573																						0		
2003	Science	6,7,8			1,238												0												
2004	Family Consumer Science	6,7,8			1,000	16																						16	
2005	Foreign Lang / Computer Lab	6,7,8			778														0										
2005	Tech Ed	6,7,8			1,062	17																						17	
2021	Art				1,290																			0					
							34	43	47	47	46	45	47	47	49	49	0	0	0	14	91	12	0	0	0	0	0	25	33
							465	Available Capacity in Academic Classrooms (PreK-8 + Shared + BDLC)																					

Reed Elementary School (PreK-8)																																						
Existing Room Inventory (Note: Inventory reflects classroom deployment as reported by school principals in February 2015 and as observed during site visits conducted during February-March 2015)																																						
ROOM #	Room Type	Grade Level	Room Dimensions		Pre-K	K	1	2	3	4	5	6	7	8	Shared	Science Rooms	World Language Rooms	Computer Labs	Special Education				Bilingual	ESL	Art Rooms	Music Rooms	Specialty Rooms											
			L	W															Special Ed	BDLC	Essential Skills	Autistic																
115		Pre-K	39.5	25.25	1																																	
117		Pre-K	39.5	25.25	1																																	
119		K	39.5	25.25		1																																
121		K	39.5	25.25		1																																
114		1	37.5	25.25			1																															
116		1	37.5	25.25			1																															
118		2	37.5	25.25				1																														
120		2	37.5	25.25				1																														
128		3	37	25.25					1																													
130		3	37	25.25					1																													
132		4	37	25.25						1																												
134		4	37	25.25						1																												
209		5	37	25.25							1																											
211		5	37	25.25							1																											
220		6	37	25.25								1																										
218		6	37	25.25								1																										
219		7	37	25.25									1																									
221		7	37	25.25									1																									
225		8	37.25	25.5										1																								
223		8	37.25	25.5										1																								
129	Bilingual		25	21																		1																
	ESL		18	14																			1															
	Reading Teach + Tutors		25	21																1																		
133	Essential Skills		37	25.25																																		
135	Computer		37	25.25														1																				
203	Science Classroom		37	30													1																					
207	SPED		22	15.5																	1																	
210	Essential Skills		28.5	25.25																																		
	Speech		18	10.5																		1																
	SPED		12	10.5																		1																
	Math (Elem + Middle)		12	10.5																		1																
226	Computer Lab/ Read 180		29	14																																		
222	Multi Purpose		50	25																								1										
Cafatorium	Cafatorium																																					
212	Family Consumer Science		39	25.25																								1										
137	Music		29	34.25																							1											
136	Art		29	34.25																					1													
112	Library		37	64.75																																		
Gymnasium	Gymnasium		88	58.75																																		
					2	2	2	2	2	2	2	2	2	2	0	1	0	1	5	0	2	0	1	1	1	1	1	2										
					20	Current Classroom Count (PreK-8 + Shared + Essential Skills)																																

Reed Elementary School (PreK-8)					Available Room Capacity (Note: Available room capacity reflects classroom deployment as reported by school principals in February 2015 and as observed during site visits conducted during February-March 2015)																							
ROOM #	Room Type	Grade Level	Room Dimensions		Available Seats by Space	Pre-K	K	1	2	3	4	5	6	7	8	Shared	Science Rooms	World Language Rooms	Computer Labs	Special Education				Bilingual	ESL	Art Rooms	Music Rooms	Specialty Rooms
			L	W		Utilization	Pre-K	K	1	2	3	4	5	6	7	8	Shared	Science Rooms	World Language Rooms	Computer Labs	Special Ed	BDLC	Essential Skills	Autistic	Bilingual	ESL	Art Rooms	Music Rooms
115		Pre-K	39.5	25.25	16	16																						
117		Pre-K	39.5	25.25	16	16																						
119		K	39.5	25.25	19		19																					
121		K	39.5	25.25	19		19																					
114		1	37.5	25.25	27			27																				
116		1	37.5	25.25	27			27																				
118		2	37.5	25.25	27				27																			
120		2	37.5	25.25	27				27																			
128		3	37	25.25	26					26																		
130		3	37	25.25	26					26																		
132		4	37	25.25	26						26																	
134		4	37	25.25	26						26																	
209		5	37	25.25	26							26																
211		5	37	25.25	26							26																
220		6	37	25.25	26								26															
218		6	37	25.25	26								26															
219		7	37	25.25	26									26														
221		7	37	25.25	26									26														
225		8	37.25	25.5	27										27													
223		8	37.25	25.5	27										27													
129	Bilingual		25	21	14																	14						
	ESL		18	14	7																		7					
	Reading Teach + Tutors		25	21	14														14									
133	Essential Skills		37	25.25	12																		12					
135	Computer		37	25.25	19													19										
203	Science Classroom		37	30	18												18											
207	SPED		22	15.5	10														10									
210	Essential Skills		28.5	25.25	12																		12					
	Speech		18	10.5	5														5									
	SPED		12	10.5	4														4									
	Math (Elem + Middle)		12	10.5	4														4									
226	Computer Lab/ Read 180		29	14																								
222	Multi Purpose		50	25	35																						35	
	Cafatorium																											
212	Family Consumer Science		39	25.25	16																						16	
137	Music		29	34.25	28																					28		
136	Art		29	34.25	22																			22				
112	Library		37	64.75																								
	Gymnasium		88	58.75																								
						32	38	54	54	52	52	52	52	54	0	18	0	19	37	0	24	0	14	7	22	28	51	
						517	Available Capacity in Academic Classrooms (PreK-8 + Shared +Essential Skills)																					

Existing Room Inventory (Note: Inventory reflects classroom deployment as reported by school principals in February 2015 and as observed during site visits conducted during February-March 2015)																
School Name	No. of Rooms***	Current Classroom Count	6	7	8	Shared	Computer Labs	Special Education				Bilingual	ESL	Art Rooms	Music Rooms	Specialty Rooms
								Special Ed	BDLC	Essential Skills	Autistic					
North End Middle School	No. of Rooms***	51	17	13	16	1	0	10	3	1	0	0	2	0	2	9
Wallace Middle School	No. of Rooms**	52	15	13	14	6	3	17	2	0	0	2	0	0	0	7
West Side Middle School	No. of Rooms*	56	3	0	0	52	4	4	1	0	0	0	0	3	2	4
			35	26	30	59	7	31	6	1	0	2	2	3	4	20
* 6-8 + Shared + BDLC																
** 6-8 + Shared + BDLC + Bilingual																
*** 6-8 + Shared + BDLC + Essential Skills																

Available Room Capacity (Note: Available room capacity reflects classroom deployment as reported by school principals in February 2015 and as observed during site visits conducted during February-March 2015)																	
School Name	No. of Rooms	Current Classroom Count	Available Seats by Space	6	7	8	Shared	Computer Labs	Special Education				Bilingual	ESL	Art Rooms	Music Rooms	Specialty Rooms
				Special Ed	BDLC	Essential Skills	Autistic										
North End Middle School	No. of Rooms***	51	916	320	240	295	17	0	128	33	11	0	0	19	0	0	272
Wallace Middle School	No. of Rooms**	52	1049	311	266	292	117	50	166	22	0	0	41	0	0	0	103
West Side Middle School	No. of Rooms*	56	1099	55	0	0	1033	88	58	11	0	0	0	0	69	47	75
				686	507	587	1168	139	352	66	11	0	41	19	69	47	450
* 6-8 + Shared + BDLC																	
** 6-8 + Shared + BDLC + Bilingual																	
*** 6-8 + Shared + BDLC + Essential Skills																	

North End Middle School		Existing Room Inventory (Note: Inventory reflects classroom deployment as reported by school principals in February 2015 and as observed during site visits conducted during February-March 2015)																	
ROOM #	Room Type	Grade Level	Room Dimensions			6	7	8	Shared	Comp Labs	Special Education				Bilingual	ESL	Art Rooms	Music Rooms	Specialty Rooms
			L	W	Room Area (NSF)						Special Ed	BDLC	Essential Skills	Autistic					
210	ELA	6	31.25	23.25	727	1													
213	SOCIAL STUDIES	6	28.5	23.5	670	1													
212	ELA	6	28.5	23.5	670	1													
211	MATH	6	28.5	23.25	663	1													
301	ELA	6	31.25	23.25	727	1													
326	ELA	6	28.5	23.75	677	1													
302	ELA	6	28.5	23.25	663	1													
321	MATH	6	28.5	23.5	670	1													
304	MATH	6	28.5	23.25	663	1													
320	ELA	6	28.5	23.25	663	1													
306	ELA	6	28.5	23.25	663	1													
333	SCIENCE	6	46	22.75	1,047	1													
343	SCIENCE	6	45.75	22.75	1,041	1													
337	SCIENCE/HEALTH	6	29.25	37.25	1,090	1													
303	SOCIAL STUDIES	6	28.5	23.25	663	1													
305	SOCIAL STUDIES	6	28.5	23.25	663	1													
325	SOCIAL STUDIES	6	28.5	23	656	1													
221	SOCIAL STUDIES	7	28.25	23.5	664		1												
223	MATH	7	28.5	23.25	663		1												
222	ELA	7	28.25	23.25	657		1												
224	ELA	7	28.25	23	650		1												
310	ELA	7	28.5	23.25	663		1												
327	ELA	7	28.5	23.25	663		1												
329	ELA	7	28.5	23.25	663		1												
328	MATH	7	28.5	23.25	663		1												
311	MATH	7	28.5	23.25	663		1												
345	SCIENCE	7	29.25	37	1,082		1												
336	SCIENCE	7	23.5	44.5	1,046		1												
346	SCIENCE	7	23	44.5	1,024		1												
330	SOCIAL STUDIES	7	28.5	23.25	663		1												
313	MATH	8	28.5	23.25	663			1											
314	ELA	8	28.5	23.25	663			1											
315	SOCIAL STUDIES	8	28.5	23.25	663			1											
220	MATH	8	28.25	23.25	657			1											
214	ELA	8	28.5	23	656			1											
215	ELA	8	28.5	23	656			1											
216	SOCIAL STUDIES	8	28.5	23	656			1											
219	ELA	8	28.25	23	650			1											
312	ELA	8	28.5	23.25	663			1											
317	ELA	8	28.5	23.25	663			1											
319	ELA	8	28.5	23.25	663			1											
318	MATH	8	28.5	23.25	663			1											
338	SCIENCE LAB	8	23	44.5	1,024			1											
344	SCIENCE	8	23	44.75	1,029			1											
341	SCIENCE	8	45.75	22.75	1,041			1											
316	SOCIAL STUDIES	8	31.5	23.25	732			1											
180	READING	6,7,8	39	22.5	878					1									
c105	LITERACY	6,7,8	19	46	874					1									
227	SPED (SCOPE)	6,7,8	18.75	41	769					1									
Focus	GIFTED	6,7,8	21.5	22	473													1	

North End Middle School																				
Room Dimensions					Existing Room Inventory (Note: Inventory reflects classroom deployment as reported by school principals in February 2015 and as observed during site visits conducted during February-March 2015)															
ROOM #	Room Type	Grade Level	L	W	Room Area (NSF)	6	7	8	Shared	Comp Labs	Special Education			Bilingual	ESL	Art Rooms	Music Rooms	Specialty Rooms		
339	SPEECH	6,7,8	12.25	30.75	377						1									
218	SPED (SMALL GROUPS)	6,7,8	23.75	14	333						1									
103	BDLC	6,7,8	23	39.25	903							1								
101	BDLC	6,7,8	24.5	31.25	766							1								
102	BDLC	6,7,8	28.75	23	661							1								
203	BUS/TECH/CONS	6,7,8	28	30.25	847													1		
208B	BUSINESS ED	6,7,8	34.5	23.75	819													1		
208A	BUSINESS ED	6,7,8	34.5	22.5	776													1		
	CAFETERIA	6,7,8	96	60	5,760															
106	COMPUTER TECH	6,7,8	39.25	45.75	1,796													1		
207	CONS. SCIENCE	6,7,8	34.5	46.75	1,613													1		
204	ESSENTIAL SKILLS CLASSROOM	6,7,8	25.5	15.5	395							1								
209	FAM & CONS SCIENCE	6,7,8	34.5	46.75	1,613													1		
c104	MUSIC	6,7,8			0												1			
205	READING/ESL	6,7,8	24	15.25	366									1						
335	SCIENCE/ESL	6,7,8	46	22.75	1,047				1											
332	SPED	6,7,8	18.75	18.5	347						1									
324	SPED	6,7,8	23.75	14.25	338						1									
340	SPED	6,7,8	18	18.75	338						1									
226	SPED	6,7,8			0						1									
308	SPED/ESL	6,7,8	23.75	14	333									1						
209	SPEECH	6,7,8			0						1									
110	TECH ED	6,7,8	27.5	76	2,090													1		
107	WOOD SHOP	6,7,8	39.25	46.75	1,835													1		
c208	Music	6,7,8			0												1			
						17	13	16	1	0	10	3	1	0	0	2	0	2	9	
						51	Current Classroom Count (6-8 + Shared + BDLC + Essential Skills)													

North End Middle School						Available Room Capacity (Note: Available room capacity reflects classroom deployment as reported by school principals in February 2015 and as observed during site visits conducted during February-March 2015)														
ROOM #	Room Type	Grade Level	Room Dimensions		Room Area (NSF)	Available Seats by Space	6	7	8	Shared	Computer Labs	Special Education				Bilingual	ESL	Art Rooms	Music Rooms	Specialty Rooms
			L	W								Special Ed	BDLC	Essential Skills	Autistic					
						90%	Utilization													
210	ELA	6	31.25	23.25	727	21	21													
213	SOCIAL STUDIES	6	28.5	23.5	670	19	19													
212	ELA	6	28.5	23.5	670	19	19													
211	MATH	6	28.5	23.25	663	19	19													
301	ELA	6	31.25	23.25	727	21	21													
326	ELA	6	28.5	23.75	677	19	19													
302	ELA	6	28.5	23.25	663	19	19													
321	MATH	6	28.5	23.5	670	19	19													
304	MATH	6	28.5	23.25	663	19	19													
320	ELA	6	28.5	23.25	663	19	19													
306	ELA	6	28.5	23.25	663	19	19													
333	SCIENCE	6	46	22.75	1,047	17	17													
343	SCIENCE	6	45.75	22.75	1,041	17	17													
337	SCIENCE/HEALTH	6	29.25	37.25	1,090	18	18													
303	SOCIAL STUDIES	6	28.5	23.25	663	19	19													
305	SOCIAL STUDIES	6	28.5	23.25	663	19	19													
325	SOCIAL STUDIES	6	28.5	23	656	18	18													
221	SOCIAL STUDIES	7	28.25	23.5	664	19		19												
223	MATH	7	28.5	23.25	663	19		19												
222	ELA	7	28.25	23.25	657	19		19												
224	ELA	7	28.25	23	650	18		18												
310	ELA	7	28.5	23.25	663	19		19												
327	ELA	7	28.5	23.25	663	19		19												
329	ELA	7	28.5	23.25	663	19		19												
328	MATH	7	28.5	23.25	663	19		19												
311	MATH	7	28.5	23.25	663	19		19												
345	SCIENCE	7	29.25	37	1,082	18		18												
336	SCIENCE	7	23.5	44.5	1,046	17		17												
346	SCIENCE	7	23	44.5	1,024	17		17												
330	SOCIAL STUDIES	7	28.5	23.25	663	19		19												
313	MATH	8	28.5	23.25	663	19			19											
314	ELA	8	28.5	23.25	663	19			19											
315	SOCIAL STUDIES	8	28.5	23.25	663	19			19											
220	MATH	8	28.25	23.25	657	19			19											
214	ELA	8	28.5	23	656	18			18											
215	ELA	8	28.5	23	656	18			18											
216	SOCIAL STUDIES	8	28.5	23	656	18			18											
219	ELA	8	28.25	23	650	18			18											
312	ELA	8	28.5	23.25	663	19			19											
317	ELA	8	28.5	23.25	663	19			19											
319	ELA	8	28.5	23.25	663	19			19											
318	MATH	8	28.5	23.25	663	19			19											
338	SCIENCE LAB	8	23	44.5	1,024	17			17											
344	SCIENCE	8	23	44.75	1,029	17			17											
341	SCIENCE	8	45.75	22.75	1,041	17			17											
316	SOCIAL STUDIES	8	31.5	23.25	732	21			21											
180	READING	6,7,8	39	22.5	878	24					24									
c105	LITERACY	6,7,8	19	46	874	24					24									
227	SPED (SCOPE)	6,7,8	18.75	41	769	22					22									
Focus	GIFTED	6,7,8	21.5	22	473	14													14	

North End Middle School																							
			Room Dimensions			Available Room Capacity (Note: Available room capacity reflects classroom deployment as reported by school principals in February 2015 and as observed during site visits conducted during February-March 2015)																	
ROOM #	Room Type	Grade Level	L	W	Room Area (NSF)	Available Seats by Space	6	7	8	Shared	Computer Labs	Special Education			Bilingual	ESL	Art Rooms	Music Rooms	Specialty Rooms				
339	SPEECH	6,7,8	12.25	30.75	377	11						11											
218	SPED (SMALL GROUPS)	6,7,8	23.75	14	333	9						9											
103	BDLC	6,7,8	23	39.25	903	11							11										
101	BDLC	6,7,8	24.5	31.25	766	11							11										
102	BDLC	6,7,8	28.75	23	661	11							11										
203	BUS/TECH/CONS	6,7,8	28	30.25	847	23													23				
208B	BUSINESS ED	6,7,8	34.5	23.75	819	23													23				
208A	BUSINESS ED	6,7,8	34.5	22.5	776	22													22				
	CAFETERIA	6,7,8	96	60	5,760																		
106	COMPUTER TECH	6,7,8	39.25	45.75	1,796	36													36				
207	CONS. SCIENCE	6,7,8	34.5	46.75	1,613	45													45				
204	ESSENTIAL SKILLS CLASSROOM	6,7,8	25.5	15.5	395	11							11										
209	FAM & CONS SCIENCE	6,7,8	34.5	46.75	1,613	45													45				
c104	MUSIC	6,7,8			0	0												0					
205	READING/ESL	6,7,8	24	15.25	366	10									10								
335	SCIENCE/ESL	6,7,8	46	22.75	1,047	17				17													
332	SPED	6,7,8	18.75	18.5	347	10						10											
324	SPED	6,7,8	23.75	14.25	338	10						10											
340	SPED	6,7,8	18	18.75	338	10						10											
226	SPED	6,7,8			0	4						4											
308	SPED/ESL	6,7,8	23.75	14	333	9									9								
209	SPEECH	6,7,8			0	4						4											
110	TECH ED	6,7,8	27.5	76	2,090	34													34				
107	WOOD SHOP	6,7,8	39.25	46.75	1,835	30													30				
c208	Music	6,7,8			0	0												0					
							320	240	295	17	0	128	33	11	0	0	19	0	0	272			
							916	Available Capacity in Academic Classrooms (6-8 + Shared + BDLC + Essential Skills)															

Wallace Middle School						Existing Room Inventory (Note: Inventory reflects classroom deployment as reported by school principals in February 2015 and as observed during site visits conducted during February-March 2015)													
ROOM #	Room Type	Grade Level	Room Dimensions			6	7	8	Shared	Computer Labs	Special Education				Bilingual	ESL	Art Rooms	Music Rooms	Specialty Rooms
			L	W	Room Area (NSF)						Special Ed	BDLC	Essential Skills	Autistic					
A271	Italian	6,7,8	30.25	23.5	711				1										
A216	Language Arts	6	30.5	23.75	724	1													
A356	Reading	6	30.5	23.5	717	1													
A303	Reading	6	30.75	23.5	723	1													
A211	Reading	6	30.5	23.75	724	1													
A325	Math	6	30.75	23.5	723	1													
A223	Math	6	31	23.5	729	1													
A337	Math	6	31	23.5	729	1													
A316	Social Studies	6	30.75	23.5	723	1													
A361	Social Studies	6	30.75	23.5	723	1													
A203	Social Studies	6	31	23.5	729	1													
A336	Science	6	31.5	33.25	1,047	1													
A329	Science Lab Annex	6	25.75	44.25	1,139	1													
A272	HSAA	6	32.25	23.5	758	1													
A273	HSAA	6	32	30.25	968	1													
A202	Language Arts	7	31	23.5	729		1												
A302	Math	7	30.75	23.5	723		1												
A224	Math	7	31	23.5	729		1												
A338	Math	7	31	23.5	729		1												
A225	Social Studies	7	30.25	23.5	711		1												
A339	Social Studies	7	30.25	23.5	711		1												
A327	Social Studies	7	30.75	23.5	723		1												
A341	Reading	7	30.75	23.5	723		1												
A301	Reading	7	30.75	23.5	723		1												
A326	Reading	7	30.75	23.5	723		1												
A340	Reading	7	31	23.5	729		1												
A201	Reading	7	32.75	23.75	778		1												
A332	Science Lab Annex	7	25.75	44.25	1,139		1												
A317	Reading	8	30.75	23.5	723				1										
A360	Reading	8	30.75	23.5	723				1										
A212	Language Arts	8	30.5	23.75	724				1										
A215	Math	8	28.75	23.5	676				1										
A357	Math	8	30.5	23.5	717				1										
A214	Math	8	32.25	23.75	766				1										
A320	Social Studies	8	30.75	23.5	723				1										
A358	Social Studies	8	30.75	23.5	723				1										

Wallace Middle School						Existing Room Inventory (Note: Inventory reflects classroom deployment as reported by school principals in February 2015 and as observed during site visits conducted during February-March 2015)													
ROOM #	Room Type	Grade Level	Room Dimensions			6	7	8	Shared	Computer Labs	Special Education				Bilingual	ESL	Art Rooms	Music Rooms	Specialty Rooms
			L	W	Room Area (NSF)						Special Ed	BDLC	Essential Skills	Autistic					
A213	Reading	8	30.25	23.5	711			1											
3312	Reading	8	45.75	22	1,007			1											
A342	Language Arts	8	30.75	23.5	723			1											
3305	Science	8	29.25	36.75	1,075			1											
A318	Reading	8	30.75	23.5	723			1											
A118	Social Studies	6,7,8	30.25	31.5	953				1										
A120	SPED	6,7,8	30.5	20.25	618					1									
A119	SPED	6,7,8	30.5	20.25	618					1									
A256	SPED	6,7,8	30.75	23.5	723					1									
A134	SPED	6,7,8	32.75	46.75	1,531					1									
A104	BDLC	6	31	34.25	1,062						1								
A101	BDLC	7,8	31	35	1,085						1								
A253	Bilingual - Math	6,7,8	30.5	23.5	717								1						
A254	Bilingual - Math	6,7,8	31	23.25	721								1						
A319	Math / SPED	8	30.75	23.5	723			1											
A251	Reading	6,7,8	30.75	23.75	730					1									
A321	Reading	6	30.75	23.5	723	1													
3310	Reading	6	29.25	22.25	651					1									
A347	Reading	6	30.5	23.5	717					1									
3307	Reading	7	29.75	22.25	662					1									
3308	Reading	8	29.75	22.25	662					1									
A150	Reading	6,7,8	27	25	675					1									
A252	Reading	6,7,8	30.75	23.5	723					1									
A123	In School Suspension	6,7,8	19	11.75	223													1	
A152	Tech Ed	6,7,8	30.75	62.75	1,930													1	
A255	Unified Arts	6,7,8	32.25	23.75	766													1	
A122	Science	6,7,8	30.5	31.5	961				1										
A115	Science	6,7,8	30.5	31.75	968				1										
A131A	CCMP Business	6,7,8	24.25	25.75	624													1	
A131	CCMP Business	6,7,8	24.25	26.75	649													1	
2205	Computer Lab	6,7,8	29.25	34.25	1,002					1									
A101A	Computers	6,7,8	32	22.75	728					1									
A157	Computers	6,7,8	34.5	23.5	811					1									
A324	Discovery Lab	7	31.75	34.75	1,103				1										
A132	Family Consumer Scier	6,7,8	23.75	36.75	873													1	
A257	Health	6,7,8	30.5	24.25	740													1	
A133	Home Econ / HS	High School	46.75	23.75	1,110														
A359	Classroom		30.75	23.5	723				1										
A260	Focus		13	15.75	205					1									
A137	Office/ Time Out Room		19.75	12.25	242														
A343	Speech/Language/Pathology		13.25	18.75	248					1									
A304	Speech		18	20.5	369					1									
A270	Literacy		30.5	23.5	717					1									
A268	Literacy		31	23.5	729					1									
A269	Literacy		32	23.5	752					1									
						15	13	14	6	3	17	2	0	0	2	0	0	0	7
						52 Current Classroom Count (6-8 + Shared + BDLC + Bilingual)													

Wallace Middle School						Available Room Capacity (Note: Available room capacity reflects classroom deployment as reported by school principals in February 2015 and as observed during site visits conducted during February-March 2015)														
ROOM #	Room Type	Grade Level	Room Dimensions		Room Area (NSF)	Available Seats by Space	6	7	8	Shared	Computer Labs	Special Education				Bilingual	ESL	Art Rooms	Music Rooms	Specialty Rooms
			L	W			Utilization				Special Ed	BDLC	Essential Skills	Autistic						
A271	Italian	6,7,8	30.25	23.5	711	20				20										
A216	Language Arts	6	30.5	23.75	724	21	21													
A356	Reading	6	30.5	23.5	717	20	20													
A303	Reading	6	30.75	23.5	723	21	21													
A211	Reading	6	30.5	23.75	724	21	21													
A325	Math	6	30.75	23.5	723	21	21													
A223	Math	6	31	23.5	729	21	21													
A337	Math	6	31	23.5	729	21	21													
A316	Social Studies	6	30.75	23.5	723	21	21													
A361	Social Studies	6	30.75	23.5	723	21	21													
A203	Social Studies	6	31	23.5	729	21	21													
A336	Science	6	31.5	33.25	1,047	17	17													
A329	Science Lab Annex	6	25.75	44.25	1,139	19	19													
A272	HSAA	6	32.25	23.5	758	22	22													
A273	HSAA	6	32	30.25	968	27	27													
A202	Language Arts	7	31	23.5	729	21		21												
A302	Math	7	30.75	23.5	723	21		21												
A224	Math	7	31	23.5	729	21		21												
A338	Math	7	31	23.5	729	21		21												
A225	Social Studies	7	30.25	23.5	711	20		20												
A339	Social Studies	7	30.25	23.5	711	20		20												
A327	Social Studies	7	30.75	23.5	723	21		21												
A341	Reading	7	30.75	23.5	723	21		21												
A301	Reading	7	30.75	23.5	723	21		21												
A326	Reading	7	30.75	23.5	723	21		21												
A340	Reading	7	31	23.5	729	21		21												
A201	Reading	7	32.75	23.75	778	22		22												
A332	Science Lab Annex	7	25.75	44.25	1,139	19		19												
A317	Reading	8	30.75	23.5	723	21			21											
A360	Reading	8	30.75	23.5	723	21			21											
A212	Language Arts	8	30.5	23.75	724	21			21											
A215	Math	8	28.75	23.5	676	19			19											
A357	Math	8	30.5	23.5	717	20			20											
A214	Math	8	32.25	23.75	766	22			22											
A320	Social Studies	8	30.75	23.5	723	21			21											
A358	Social Studies	8	30.75	23.5	723	21			21											

Wallace Middle School						Available Room Capacity (Note: Available room capacity reflects classroom deployment as reported by school principals in February 2015 and as observed during site visits conducted during February-March 2015)														
ROOM #	Room Type	Grade Level	Room Dimensions		Room Area (NSF)	Available Seats by Space	6	7	8	Shared	Computer Labs	Special Education				Bilingual	ESL	Art Rooms	Music Rooms	Specialty Rooms
			L	W			Utilization	Special Ed	BDLC	Essential Skills	Autistic									
A213	Reading	8	30.25	23.5	711	20			20											
3312	Reading	8	45.75	22	1,007	28			28											
A342	Language Arts	8	30.75	23.5	723	21			21											
3305	Science	8	29.25	36.75	1,075	18			18											
A318	Reading	8	30.75	23.5	723	21			21											
A118	Social Studies	6,7,8	30.25	31.5	953	27				27										
A120	SPED	6,7,8	30.5	20.25	618	11					11									
A119	SPED	6,7,8	30.5	20.25	618	11					11									
A256	SPED	6,7,8	30.75	23.5	723	11					11									
A134	SPED	6,7,8	32.75	46.75	1,531	11					11									
A104	BDLC	6	31	34.25	1,062	11						11								
A101	BDLC	7,8	31	35	1,085	11						11								
A253	Bilingual - Math	6,7,8	30.5	23.5	717	20									20					
A254	Bilingual - Math	6,7,8	31	23.25	721	21									21					
A319	Math / SPED	8	30.75	23.5	723	21			21											
A251	Reading	6,7,8	30.75	23.75	730	11					11									
A321	Reading	6	30.75	23.5	723	21	21													
3310	Reading	6	29.25	22.25	651	11					11									
A347	Reading	6	30.5	23.5	717	11					11									
3307	Reading	7	29.75	22.25	662	11					11									
3308	Reading	8	29.75	22.25	662	11					11									
A150	Reading	6,7,8	27	25	675	11					11									
A252	Reading	6,7,8	30.75	23.5	723	11					11									
A123	In School Suspension	6,7,8	19	11.75	223	6														6
A152	Tech Ed	6,7,8	30.75	62.75	1,930	24														24
A255	Unified Arts	6,7,8	32.25	23.75	766	13														13
A122	Science	6,7,8	30.5	31.5	961	15				15										
A115	Science	6,7,8	30.5	31.75	968	16				16										
A131A	CCMP Business	6,7,8	24.25	25.75	624	13														13
A131	CCMP Business	6,7,8	24.25	26.75	649	13														13
2205	Computer Lab	6,7,8	29.25	34.25	1,002	20					20									
A101A	Computers	6,7,8	32	22.75	728	14					14									
A157	Computers	6,7,8	34.5	23.5	811	16					16									
A324	Discovery Lab	7	31.75	34.75	1,103	18				18										
A132	Family Consumer Scier	6,7,8	23.75	36.75	873	14														14
A257	Health	6,7,8	30.5	24.25	740	21														21
A133	Home Econ / HS	High School	46.75	23.75	1,110	18														
A359	Classroom		30.75	23.5	723	21				21										
A260	Focus		13	15.75	205	4					4									
A137	Office/ Time Out Room		19.75	12.25	242	4					4									
A343	Speech/Language/Pathology		13.25	18.75	248	4					4									
A304	Speech		18	20.5	369	4					4									
A270	Literacy		30.5	23.5	717	11					11									
A268	Literacy		31	23.5	729	11					11									
A269	Literacy		32	23.5	752	11					11									
							311	266	292	117	50	166	22	0	0	41	0	0	0	103
							1,049 Available Capacity in Academic Classrooms (6-8 + Shared + BDLC + Bilingual)													

West Side Middle School																			
			Room Dimensions			Existing Room Inventory (Note: Inventory reflects classroom deployment as reported by school principals in February 2015 and as observed during site visits conducted during February-March 2015)													
ROOM #	Room Type	Grade Level	L	W	Room Area (NSF)	6	7	8	Shared	Computer Labs	Special Education				Bilingual	ESL	Art Rooms	Music Rooms	Specialty Rooms
											Special Ed	BDLC	Essential Skills	Autistic					
A247	Math	6			749	1													
A279	Reading/language Arts	6			756	1													
A201	Math	6,7,8			743				1										
A202	Social Studies	6,7,8			753				1										
A221	Writing	6,7,8			753				1										
A212	Classroom	6,7,8			749				1										
A211	Classroom	6,7,8			749				1										
A343	Academic				670				1										
A232	Language Arts				743				1										
A233	Language Arts				743				1										
A313	Reading / Language Arts				749				1										
A326	Reading / Language Arts				753				1										
A280	Reading / Language Arts				749				1										
A235	Math				743				1										
A348	Math				753				1										
A361	Math				749				1										
A325	Math				753				1										
A267	Social Studies				743				1										
A316	Social Studies				741				1										
162	Music		26.25	34.5	906													1	
A372	Reading				743				1										
A339	Reading				749				1										
A337	Reading				753				1										
A101	Art	6,7,8			1,747												1		
A139	Art	6,7,8			884												1		
A136	Art	6,7,8			803												1		
A117	Computer Lab	6,7,8			983					1									
A122	Computer Lab	6,7,8			1,083					1									
A102	Computer Lab	6,7,8			1,470					1									
A285	Computers				876					1									
A118	Fitness Center	6,7,8			1,100														1
A105	Home Econ	6,7,8	44	27.25	1,199														1
A104	Home Econ	6,7,8	44	27.25	1,199														1
A137	Music	6,7,8			969													1	
A107	Office/Conference	6,7,8			0														
A222	Resource	6,7,8			753						1								
A203	SPED	6,7,8			753				1										
A224	SPED	6,7,8			224						1								
A269	BDLC				756							1							
	Cafeteria				0														
A268	Science				743				1										
A249	Science	6			756	1													
A283	Science				746				1										

West Side Middle School						Existing Room Inventory (Note: Inventory reflects classroom deployment as reported by school principals in February 2015 and as observed during site visits conducted during February-March 2015)													
ROOM #	Room Type	Grade Level	Room Dimensions			6	7	8	Shared	Computer Labs	Special Education				Bilingual	ESL	Art Rooms	Music Rooms	Specialty Rooms
			L	W	Room Area (NSF)						Special Ed	BDLC	Essential Skills	Autistic					
A333	Science				932				1										
A335	Science				949				1										
A332	Science				949				1										
A327	Science				932				1										
A320	Science				949				1										
A319	Science				949				1										
161	Suspension		26.25	34.5	906													1	
A270	Classroom				756				1										
A260	SPED Classroom				756					1									
A257	SPED Classroom				756					1									
A246	Classroom				752				1										
A281	Classroom				746				1										
A374	Classroom				760				1										
A373	Classroom				760				1										
A371	Classroom				749				1										
A351	Classroom				749				1										
A349	Classroom				743				1										
A353	Classroom				760				1										
A364	Classroom				756				1										
A363	Classroom				756				1										
A362	Classroom				753				1										
A336	Classroom				753				1										
A341	Classroom				643				1										
A345	SPED Classroom				382				1										
A303	Classroom				698				1										
A302	Classroom				698				1										
A301	Classroom				743				1										
A312	Classroom				749				1										
163	Classroom		26.25	34.5	906				1										
164	Classroom		26.25	34.5	906				1										
165	Classroom		26.25	34.5	906				1										
166	Classroom		26.25	34.5	906				1										
						3	0	0	52	4	4	1	0	0	0	0	3	2	4
						56	Current Classroom Count (6-8 + Shared + BDLC)												

West Side Middle School						Available Room Capacity (Note: Available room capacity reflects classroom deployment as reported by school principals in February 2015 and as observed during site visits conducted during February-March 2015)														
ROOM #	Room Type	Grade Level	Room Dimensions		Room Area (NSF)	Available Seats by Space	6	7	8	Shared	Computer Labs	Special Education				Bilingual	ESL	Art Rooms	Music Rooms	Specialty Rooms
			L	W			Utilization	Special Ed	BDLC	Essential Skills	Autistic									
A247	Math	6			749	21	21													
A279	Reading/language Arts	6			756	22	22													
A201	Math	6,7,8			743	21			21											
A202	Social Studies	6,7,8			753	22			22											
A221	Writing	6,7,8			753	22			22											
A212	Classroom	6,7,8			749	21			21											
A211	Classroom	6,7,8			749	21			21											
A343	Academic				670	19			19											
A232	Language Arts				743	21			21											
A233	Language Arts				743	21			21											
A313	Reading / Language Arts				749	21			21											
A326	Reading / Language Arts				753	22			22											
A280	Reading / Language Arts				749	21			21											
A235	Math				743	21			21											
A348	Math				753	22			22											
A361	Math				749	21			21											
A325	Math				753	22			22											
A267	Social Studies				743	21			21											
A316	Social Studies				741	21			21											
162	Music		26.25	34.5	906	23												23		
A372	Reading				743	21			21											
A339	Reading				749	21			21											
A337	Reading				753	22			22											
A101	Art	6,7,8			1,747	35											35			
A139	Art	6,7,8			884	18											18			
A136	Art	6,7,8			803	16											16			
A117	Computer Lab	6,7,8			983	20				20										
A122	Computer Lab	6,7,8			1,083	22				22										
A102	Computer Lab	6,7,8			1,470	30				30										
A285	Computers				876	17				17										
A118	Fitness Center	6,7,8			1,100	10														10
A105	Home Econ	6,7,8	44	27.25	1,199	20														20
A104	Home Econ	6,7,8	44	27.25	1,199	20														20
A137	Music	6,7,8			969	24												24		
A107	Office/Conference	6,7,8			0															
A222	Resource	6,7,8			753	11					11									
A203	SPED	6,7,8			753	11			11											
A224	SPED	6,7,8			224	4					4									
A269	BDLC				756	11						11								
	Cafeteria				0															
A268	Science				743	13			13											
A249	Science	6			756	13	13													
A283	Science				746	13			13											

West Side Middle School						Available Room Capacity (Note: Available room capacity reflects classroom deployment as reported by school principals in February 2015 and as observed during site visits conducted during February-March 2015)														
ROOM #	Room Type	Grade Level	Room Dimensions		Room Area (NSF)	Available Seats by Space	6	7	8	Shared	Computer Labs	Special Education				Bilingual	ESL	Art Rooms	Music Rooms	Specialty Rooms
			L	W								Special Ed	BDLC	Essential Skills	Autistic					
						90%	Utilization													
A333	Science				932	15				15										
A335	Science				949	15				15										
A332	Science				949	15				15										
A327	Science				932	15				15										
A320	Science				949	15				15										
A319	Science				949	15				15										
161	Suspension		26.25	34.5	906	25														25
A270	Classroom				756	22				22										
A260	SPED Classroom				756	22					22									
A257	SPED Classroom				756	22					22									
A246	Classroom				752	22				22										
A281	Classroom				746	21				21										
A374	Classroom				760	22				22										
A373	Classroom				760	22				22										
A371	Classroom				749	21				21										
A351	Classroom				749	21				21										
A349	Classroom				743	21				21										
A353	Classroom				760	22				22										
A364	Classroom				756	22				22										
A363	Classroom				756	22				22										
A362	Classroom				753	22				22										
A336	Classroom				753	22				22										
A341	Classroom				643	18				18										
A345	SPED Classroom				382	11				11										
A303	Classroom				698	20				20										
A302	Classroom				698	20				20										
A301	Classroom				743	21				21										
A312	Classroom				749	21				21										
163	Classroom		26.25	34.5	906	25				25										
164	Classroom		26.25	34.5	906	25				25										
165	Classroom		26.25	34.5	906	25				25										
166	Classroom		26.25	34.5	906	25				25										
							55	0	0	1033	88	58	11	0	0	0	0	69	47	75
							1099 Available Capacity in Academic Classrooms (6-8 + Shared + BDLC)													



St. Peter and Paul

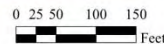


- 4.0 Acres, excluding convent and north parking/ play area. Approx. 5.2 acres including those features
- Understandings:
 - Church/ Rectory will remain active?
 - Possibility of convent site availability?
- Discussion topics:
 - Church parking requirements?
 - Need for shared parking? Timing?

Site Area = 4.0 Acres

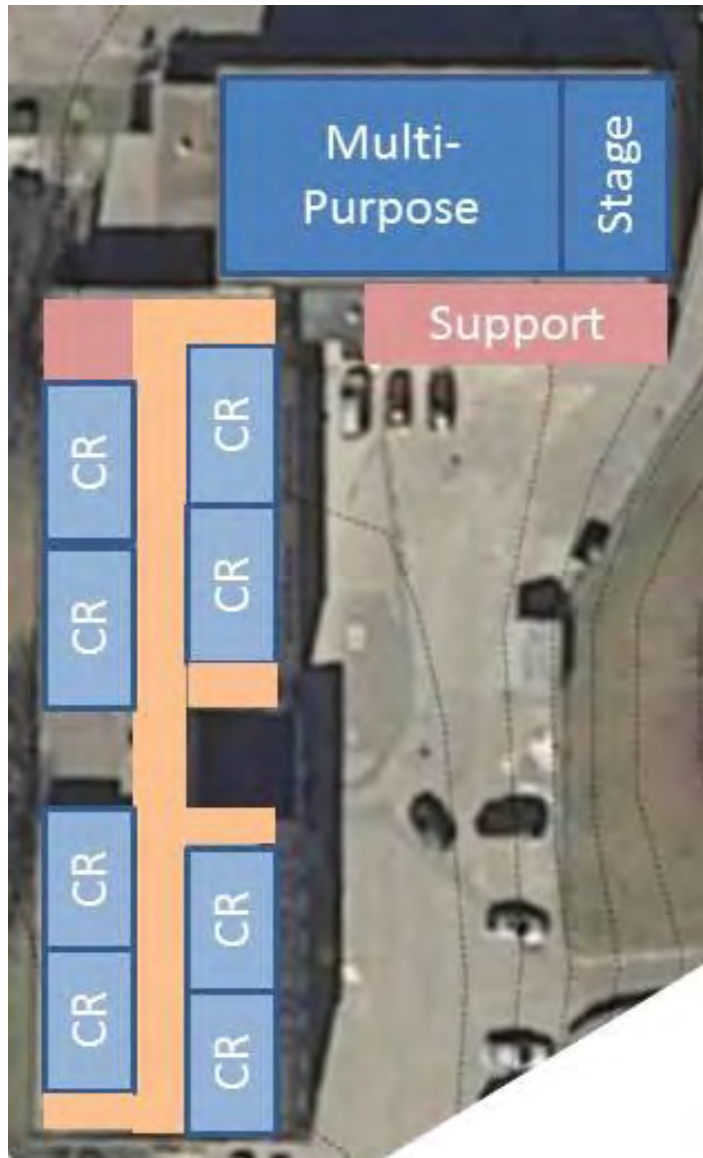
St. Peter and Paul School
116 Beecher Ave, Waterbury, CT 06705

1 inch = 60 feet





St. Peter and Paul



- Old building (3 story):
 - 4 classrooms per floor x 2 floors = 8
 - One classroom space is library
 - One classroom space is computer lab
 - Good sized classrooms
 - Reasonable floor to floor height
 - Rest rooms in basement level and are inaccessible
- New building (2 story):
 - 4 classrooms per floor x 2 floors = 8
 - Good sized classrooms
 - Multi-purpose (Gym, Caf, Aud.) w/ stage
 - Small kitchen/servery
- ADA accessibility considerations:
 - No elevator
 - Multiple levels at main entry
 - Rest rooms inaccessible
 - Stage inaccessible
 - Ramp exists at gym entry
- No sprinklers
- Floor levels mis-aligned
- Requires Haz Mat abatement



St. Peter and Paul



- Old building (3 story):
 - 4 classrooms per floor x 2 floors = 8
 - One classroom space is library
 - One classroom space is computer lab
 - Good sized classrooms
 - Reasonable floor to floor height
 - Rest rooms in basement level and are inaccessible
- New building (2 story):
 - 4 classrooms per floor x 2 floors = 8
 - Good sized classrooms
 - Multi-purpose (Gym, Caf, Aud.) w/ stage
 - Small kitchen/servery
- ADA accessibility considerations:
 - No elevator
 - Multiple levels at main entry
 - Rest rooms inaccessible
 - Stage inaccessible
 - Ramp exists at gym entry
- No sprinklers
- Floor levels mis-aligned
- Requires Haz Mat abatement



St. Peter and Paul



- Masonry exterior
- Punched windows and window walls
- Windows/ roof likely need replacement to meet current energy codes





St. Anne's



- 2.0 Acres
- Very tight site
- Understandings:
 - Church will remain active?
- Discussion topics:
 - Church parking requirements?
 - Need for shared parking? Timing?

Site Area = 2.04 Acres

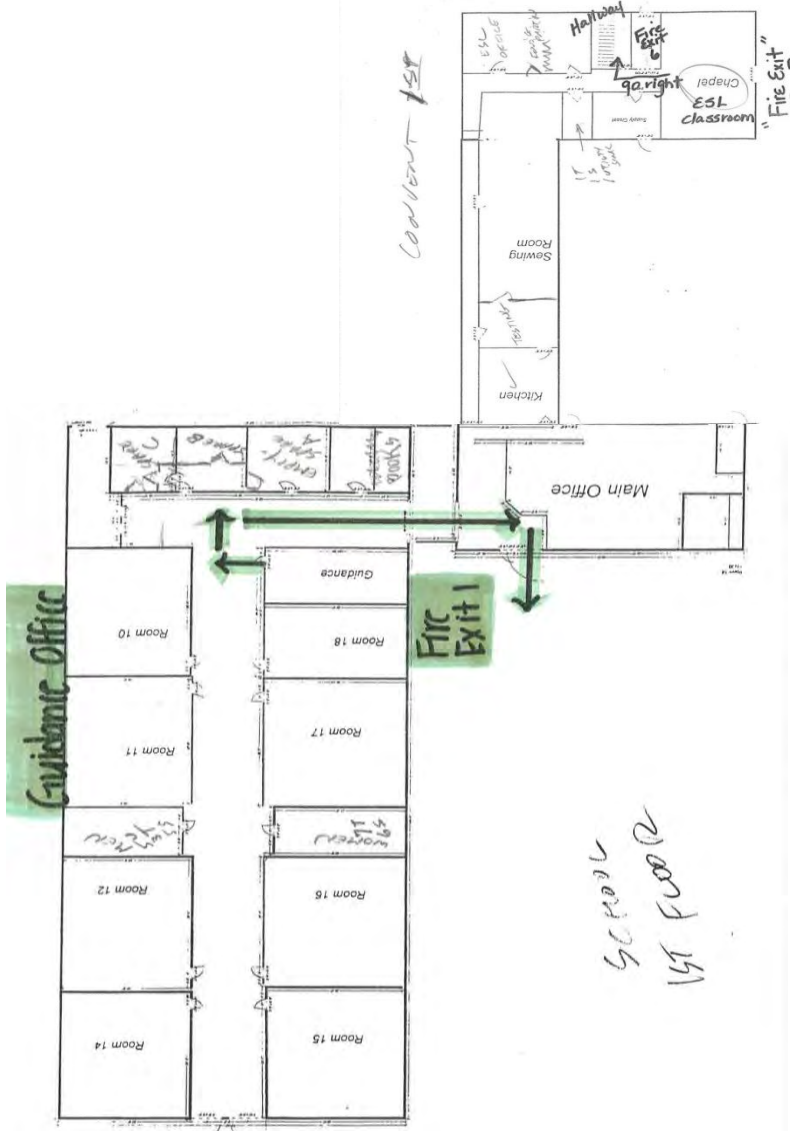
St. Anne's School
28 East Clay Street, Waterbury, CT 06706

1 inch = 40 feet





St. Anne's



- Building (2 story):
 - 15 classrooms in academic wing
 - Good sized classrooms (~800 SF)
 - 8 classrooms in convent wing
 - Small classrooms (range: 200 – 325 SF)
 - Chapel classroom ~575 SF
 - One classroom space is library
 - One classroom space is computer lab
 - Small kitchen/servery
- ADA accessibility considerations:
 - No elevator
 - Multiple levels at entry points
 - Rest rooms inaccessible
 - Stage inaccessible
- No sprinklers
- Likely requires Haz Mat abatement



St. Anne's

- Masonry exterior
- Window walls need replacement
- Roof likely needs replacement





St. Joseph's



- 1.5 Acres
- Very tight site, challenged geometry
- Understandings:
 - Church will remain active?
 - Convent to remain active?
- Discussion topics:
 - Church parking requirements?
 - Need for shared parking? Timing?

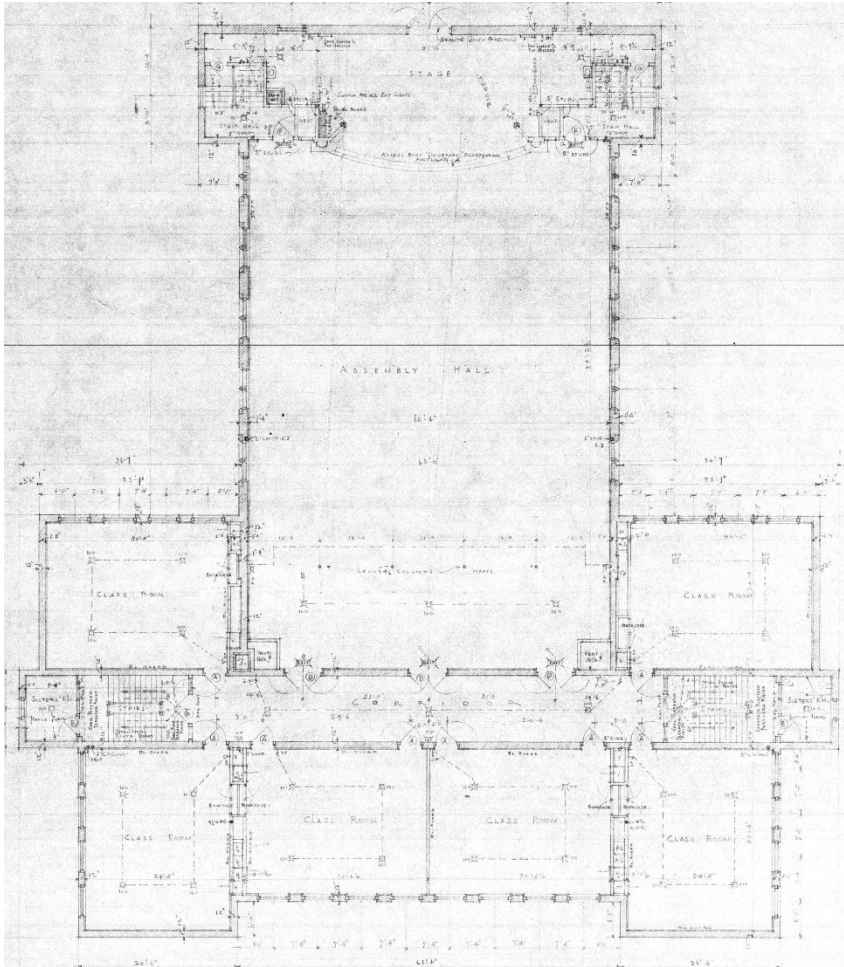
Site Area = 1.52 Acres
St. Joseph's School
29 John Street, Waterbury, CT 06708

1 inch = 40 feet





St. Joseph's

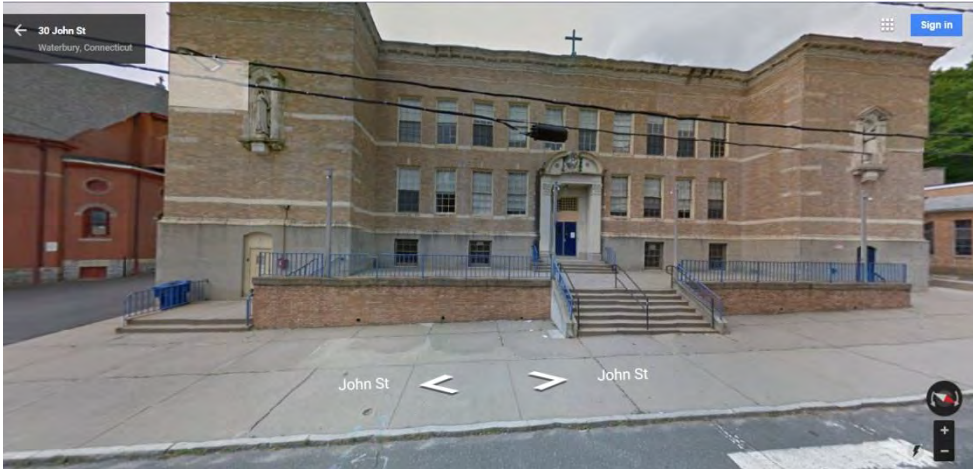


- Building (3 story):
 - Plans don't exactly match reality
 - 6 classrooms per floor x 2 floors = 12
 - Modest sized classrooms (~675 SF)
 - Rest rooms/ locker rooms in lower level
 - Multi-purpose (Gym, Aud.) w/ stage on middle level
 - Recreation room in lower level (Caf, Gym)
 - Small kitchen/servery in lower level
 - Bowling alley in lower level
- ADA accessibility considerations:
 - No elevator
 - Mid-level entrances
 - Rest rooms inaccessible
 - Stage inaccessible
- Wood framed floor structures
- No sprinklers
- Requires Haz Mat abatement



St. Joseph's

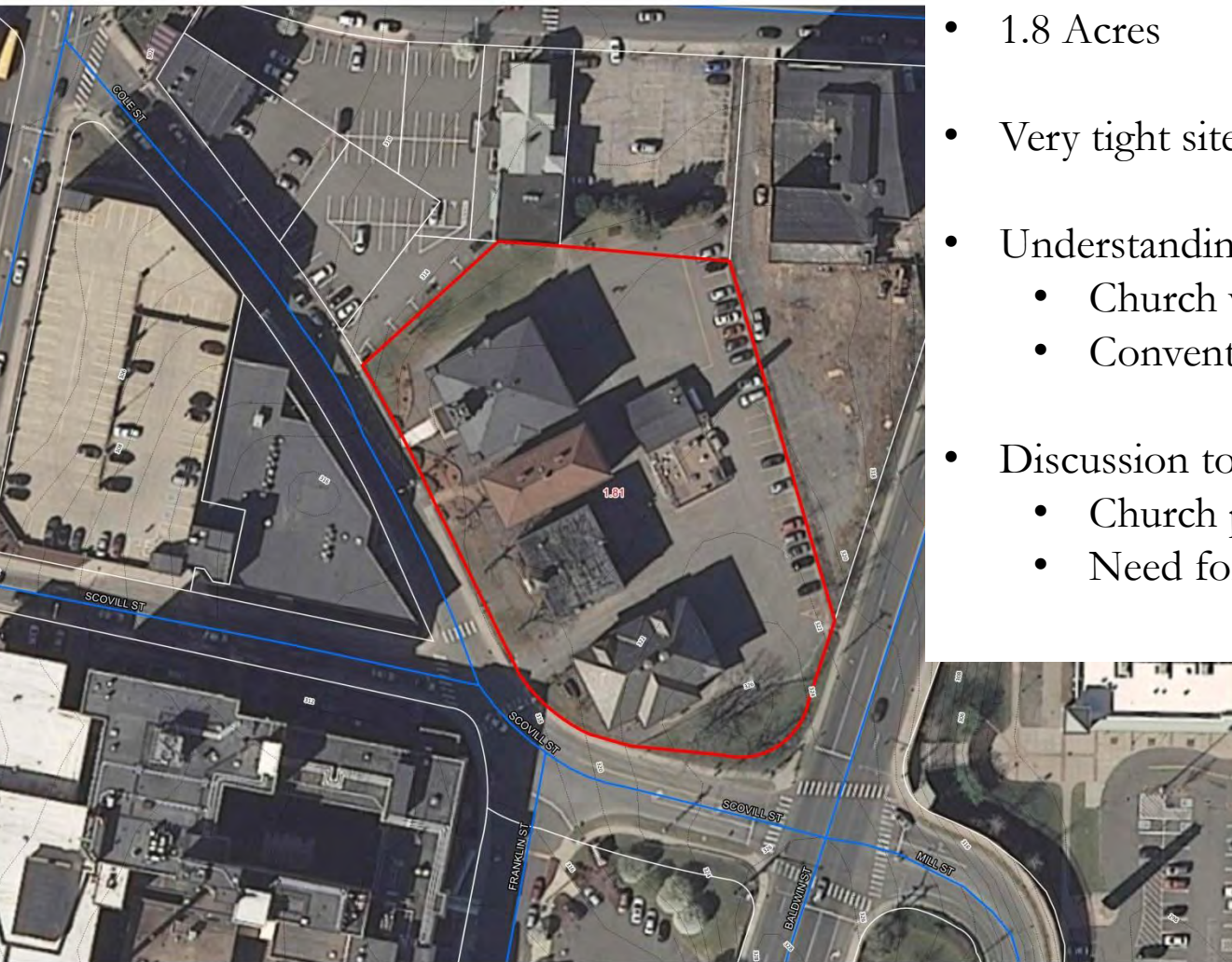
- 3 story building
- Masonry exterior
- Punched windows
- Roof and windows likely need replacement to meet current energy codes



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St. Mary's

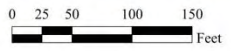


- 1.8 Acres
- Very tight site, challenged geometry
- Understandings:
 - Church will remain active?
 - Convent to remain active?
- Discussion topics:
 - Church parking requirements?
 - Need for shared parking? Timing?

Site Area = 1.81 Acres

St. Mary's School
43 Cole Street, Waterbury, CT 06706

1 inch = 40 feet





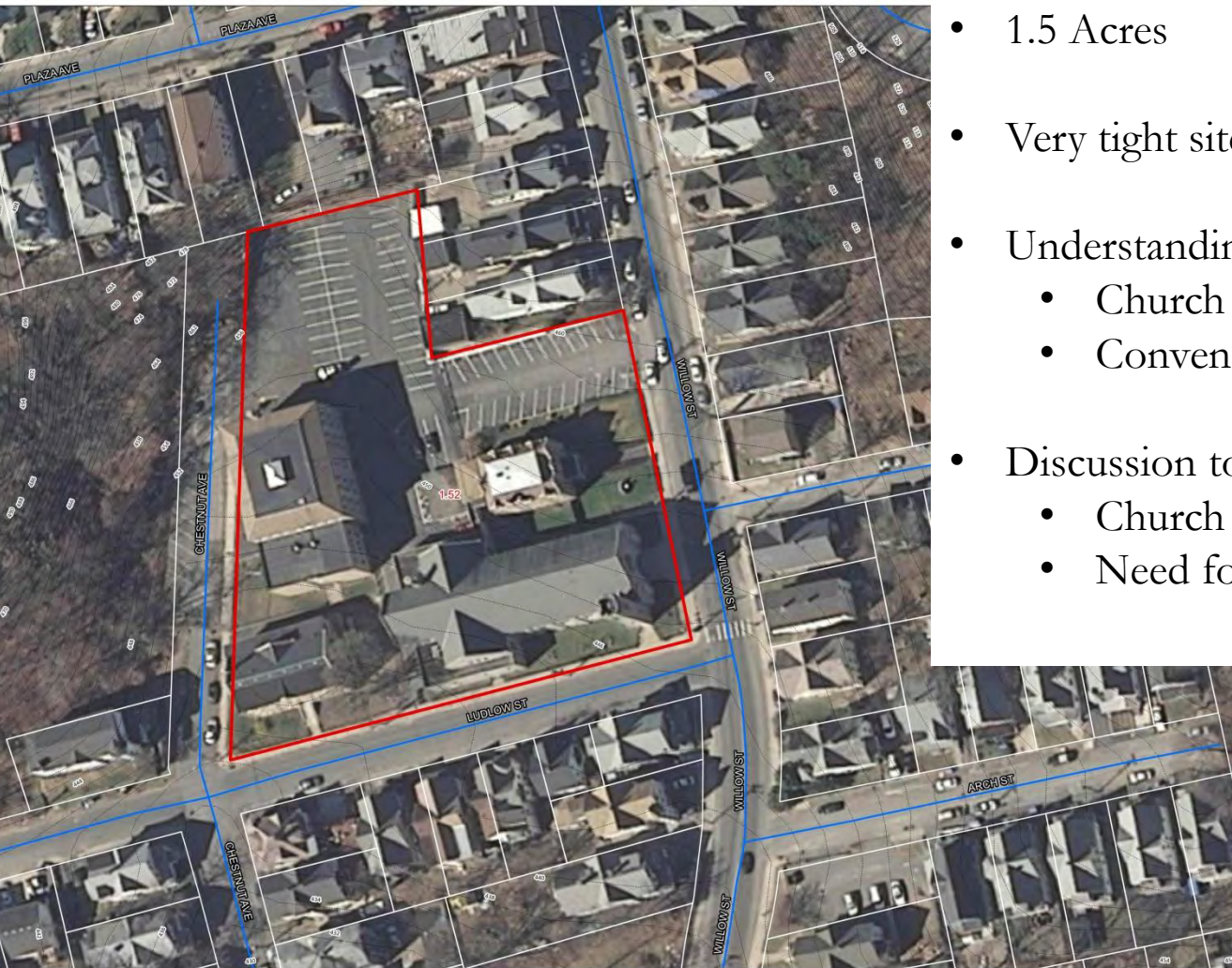
St. Mary's



- 3 & 4 story buildings
- Masonry exterior
- Punched windows
- No floor plan information



St. Margaret's



- 1.5 Acres
- Very tight site, challenged geometry
- Understandings:
 - Church will remain active?
 - Convent to remain active?
- Discussion topics:
 - Church parking requirements?
 - Need for shared parking? Timing?

Site Area = 1.52 Acres

St. Margaret School (Brass City Charter)
212 Chestnut Ave, Waterbury, CT 06710

1 inch = 40 feet





St. Margaret's



- 3 & 4 story buildings
- Masonry exterior
- Punched windows
- No floor plan information



State Street School (St. Lucy's) PAL



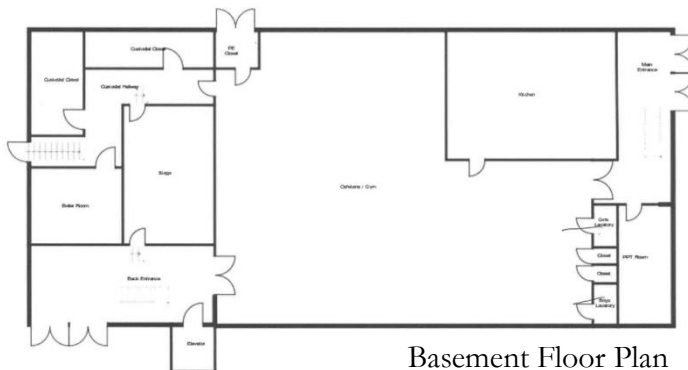
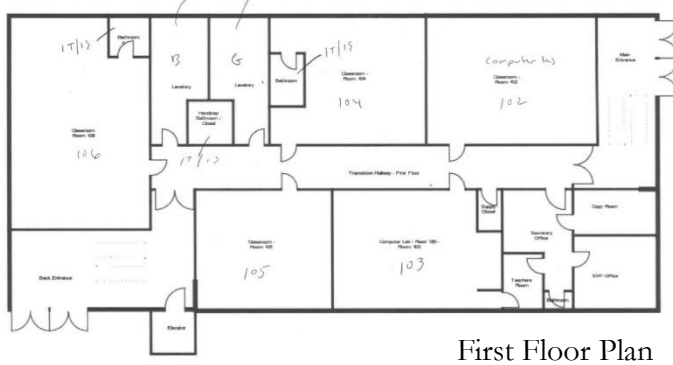
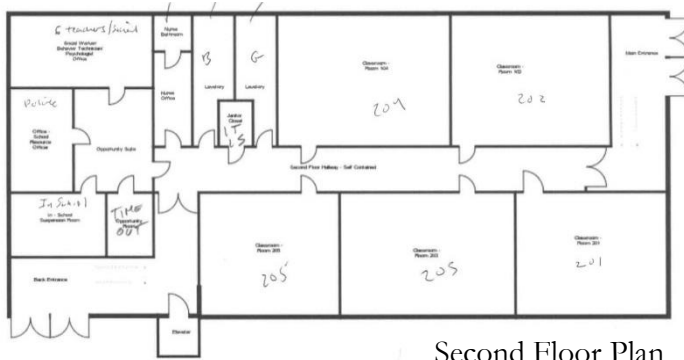
- 0.63 Acres
- Very tight site
- Adjacent to Reed ES
- Adjacent community athletic facilities (Park?)





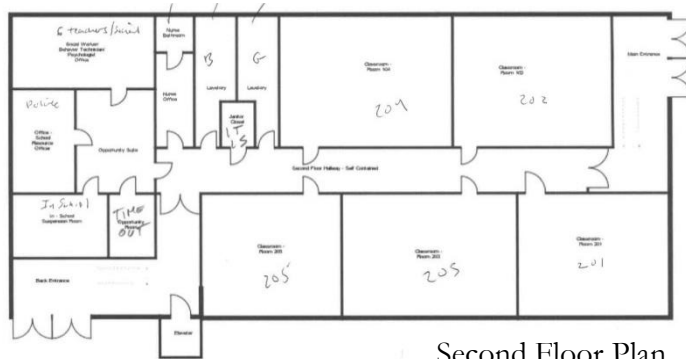
State Street School (St. Lucy's) PAL

- 3 story building, approx. 15-18,000 gsf
- Masonry exterior
- Punched windows
- 10 reasonably sized classrooms (700 – 800 nsf)
- Shared spaces in Basement level

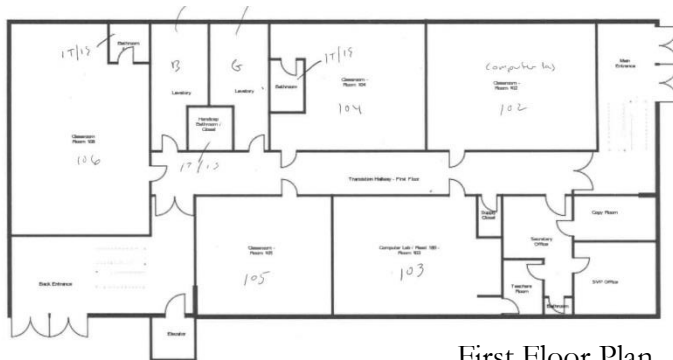




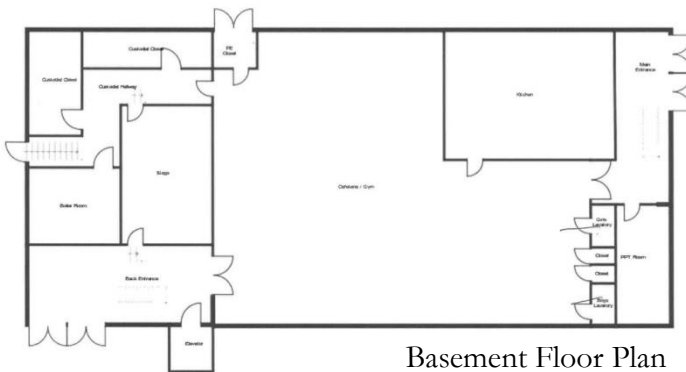
State Street School (St. Lucy's) PAL



Second Floor Plan



First Floor Plan



Basement Floor Plan

- 3 story building, approx. 15-18,000 gsf
- Masonry exterior
- Punched windows
- 10 reasonably sized classrooms (700 – 800 nsf)
- Shared spaces in Basement level





Parochial Facilities

- ◇ Generally sites are too small to support PreK-8, 2 CR/Gr.
- ◇ Facilities with potential for alternative education programs or swing space
 - ◇ St. Anne's
 - ◇ St. Josephs
 - ◇ St. Margaret's
 - ◇ St. Mary's
- ◇ Potential for PreK-8, 2 CR/Gr.
 - ◇ St. Peter & Paul
 - ◇ 4-5 acres
 - ◇ Could support school the size of Reed ES with playgrounds, and 70-80 off-street parking spaces

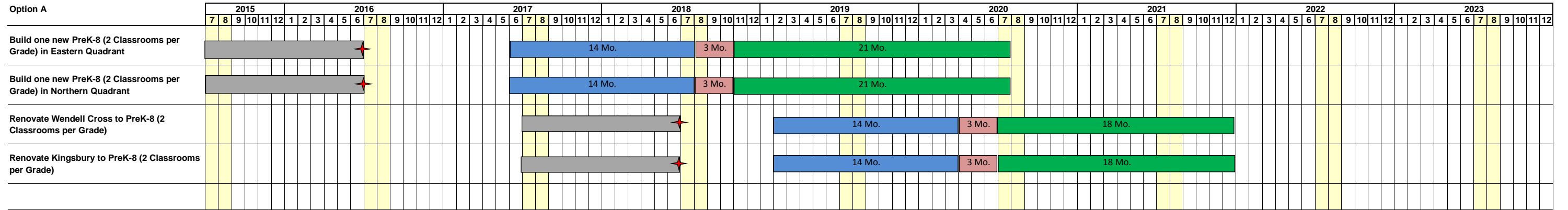
A Option A: Summary

- 1 Build one new PreK-8 (2 Classrooms per Grade) in Eastern Quadrant completed for 2020-21 school year
- 2 Build one new PreK-8 (2 Classrooms per Grade) in Northern Quadrant completed for 2020-21 school year
- 3 Renovate Wendell Cross to PreK-8 (2 Classrooms per Grade) completed for 2022-23 school year
- 4 Renovate Kingsbury to PreK-8 (2 Classrooms per Grade) completed for 2022-23 school year

B Option A: Cost Breakdown		Gross Building Area	Range Total Project Cost		Range Net Cost to Waterbury		Remarks		
1	Build one new PreK-8 (2 Classrooms per Grade) in Eastern Quadrant	76,000	\$ 46,200,000	to	\$ 52,100,000	\$ 14,500,000	to	\$ 16,000,000	
2	Build one new PreK-8 (2 Classrooms per Grade) in Northern Quadrant	76,000	\$ 46,200,000	to	\$ 52,100,000	\$ 14,500,000	to	\$ 16,000,000	
3	Renovate Wendell Cross to PreK-8 (2 Classrooms per Grade)	76,000	\$ 42,300,000	to	\$ 47,700,000	\$ 9,100,000	to	\$ 10,000,000	
4	Renovate Kingsbury to PreK-8 (2 Classrooms per Grade)	76,000	\$ 41,700,000	to	\$ 47,000,000	\$ 8,900,000	to	\$ 9,900,000	
TOTAL:			\$ 176,400,000	to	\$ 198,900,000	\$ 47,000,000	to	\$ 51,900,000	

Notes:

- 1 Net cost to Waterbury figures are not guaranteed
- 2 Renovation projects include a \$1.5M allowance for hazardous material abatement
- 3 Renovation projects include a \$4M allowance for site work and improvements
- 4 New construction projects include a \$6M allowance for site work and improvements
- 5 Cost model includes owner soft costs at 30% of construction costs
- 6 Escalated to midpoint of construction
- 7 Includes \$400,000 for site acquisition and associated fees for new construction projects (2 classroom per grade)
- 8 Excludes cost of swing space for renovation projects
- 9 Assumes renovation status granted for renovation projects
- 10 Models based on 2015 reimbursement rates: 78.57% for renovation projects and 68.57% for new construction



Key:

- Educational Specs, Site Search & Grant Application
- Design & Approvals
- Bidding
- Construction

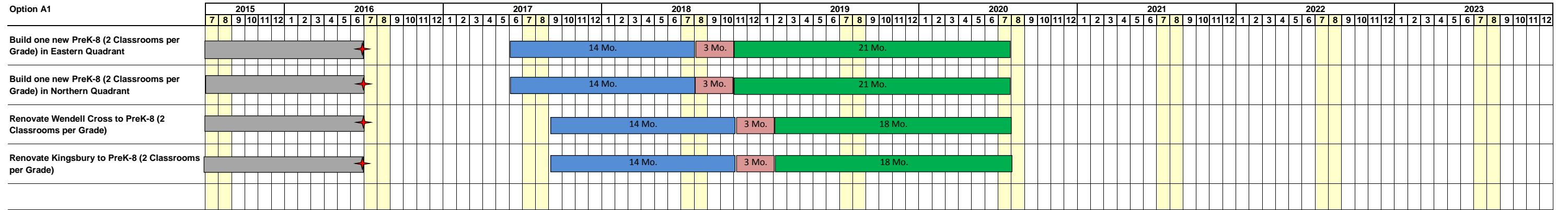
A Option A1: Summary

- 1 Build one new PreK-8 (2 Classrooms per Grade) in Eastern Quadrant completed for 2020-21 school year
- 2 Build one new PreK-8 (2 Classrooms per Grade) in Northern Quadrant completed for 2020-21 school year
- 3 Renovate Wendell Cross to PreK-8 (2 Classrooms per Grade) completed for 2020-21 school year
- 4 Renovate Kingsbury to PreK-8 (2 Classrooms per Grade) completed for 2020-21 school year

B Option A1: Cost Breakdown		Gross Building Area	Range Total Project Cost		Range Net Cost to Waterbury		Remarks		
1	Build one new PreK-8 (2 Classrooms per Grade) in Eastern Quadrant	76,000	\$ 46,200,000	to	\$ 52,100,000	\$ 14,500,000	to	\$ 16,000,000	
2	Build one new PreK-8 (2 Classrooms per Grade) in Northern Quadrant	76,000	\$ 46,200,000	to	\$ 52,100,000	\$ 14,500,000	to	\$ 16,000,000	
3	Renovate Wendell Cross to PreK-8 (2 Classrooms per Grade)	76,000	\$ 40,500,000	to	\$ 45,600,000	\$ 8,700,000	to	\$ 9,600,000	
4	Renovate Kingsbury to PreK-8 (2 Classrooms per Grade)	76,000	\$ 39,900,000	to	\$ 45,000,000	\$ 8,500,000	to	\$ 9,400,000	
TOTAL:			\$ 172,800,000	to	\$ 194,800,000	\$ 46,200,000	to	\$ 51,000,000	

Notes:

- 1 Net cost to Waterbury figures are not guaranteed
- 2 Renovation projects include a \$1.5M allowance for hazardous material abatement
- 3 Renovation projects include a \$4M allowance for site work and improvements
- 4 New construction projects include a \$6M allowance for site work and improvements
- 5 Cost model includes owner soft costs at 30% of construction costs
- 6 Escalated to midpoint of construction
- 7 Includes \$400,000 for site acquisition and associated fees for new construction projects (2 classroom per grade)
- 8 Excludes cost of swing space for renovation projects
- 9 Assumes renovation status granted for renovation projects
- 10 Models based on 2015 reimbursement rates: 78.57% for renovation projects and 68.57% for new construction



Key:

- Educational Specs, Site Search & Grant Application
- Design & Approvals
- Bidding
- Construction

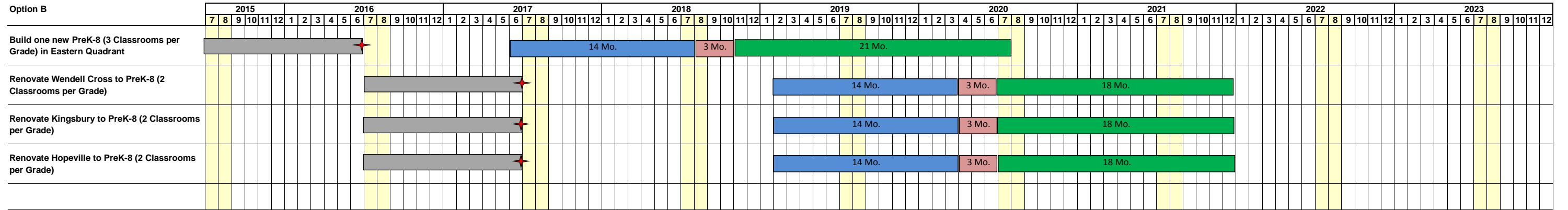
A Option B: Summary

- 1 Build one new PreK-8 (3 Classrooms per Grade) in Eastern Quadrant completed for 2020-21 school year
- 2 Renovate Wendell Cross to PreK-8 (2 Classrooms per Grade) completed for 2022-23 school year
- 3 Renovate Kingsbury to PreK-8 (2 Classrooms per Grade) completed for 2022-23 school year
- 4 Renovate Hopeville to PreK-8 (2 Classrooms per Grade) completed for 2022-23 school year

B Option B: Cost Breakdown		Gross Building Area	Range Total Project Cost		Range Net Cost to Waterbury		Remarks		
1	Build one new PreK-8 (3 Classrooms per Grade) in Eastern Quadrant	116,000	\$ 67,100,000	to	\$ 75,600,000	\$ 23,300,000	to	\$ 25,800,000	
2	Renovate Wendell Cross to PreK-8 (2 Classrooms per Grade)	76,000	\$ 42,300,000	to	\$ 47,700,000	\$ 9,100,000	to	\$ 10,000,000	
3	Renovate Kingsbury to PreK-8 (2 Classrooms per Grade)	76,000	\$ 41,700,000	to	\$ 47,000,000	\$ 8,900,000	to	\$ 9,900,000	
4	Renovate Hopeville to PreK-8 (2 Classrooms per Grade)	76,000	\$ 40,500,000	to	\$ 45,600,000	\$ 8,600,000	to	\$ 9,600,000	
TOTAL:			\$ 191,600,000	to	\$ 215,900,000	\$ 49,900,000	to	\$ 55,300,000	

Notes:

- 1 Net cost to Waterbury figures are not guaranteed
- 2 Renovation projects include a \$1.5M allowance for hazardous material abatement
- 3 Renovation projects include a \$4M allowance for site work and improvements
- 4 New construction project includes an \$8M allowance for site work and improvements
- 5 Cost model includes owner soft costs at 30% of construction costs
- 6 Escalated to midpoint of construction
- 7 Includes \$460,000 for site acquisition and associated fees for new construction project (3 classroom per grade)
- 8 Excludes cost of swing space for renovation projects
- 9 Assumes renovation status granted for renovation projects
- 10 Models based on 2015 reimbursement rates: 78.57% for renovation projects and 68.57% for new construction



Key:

- Educational Specs, Site Search & Grant Application ★
- Design & Approvals
- Bidding
- Construction

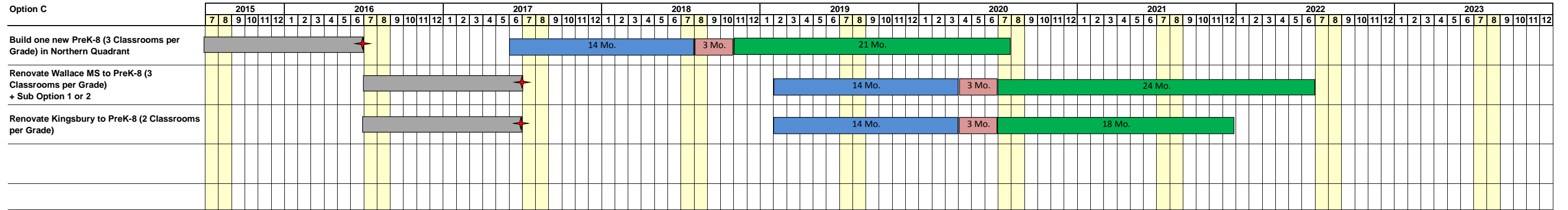
A Option C: Summary

- 1 Build one new PreK-8 (3 Classrooms per Grade) in Northern Quadrant completed for 2020-21 school year
- 2 Renovate Wallace MS to PreK-8 (3 Classrooms per Grade) + Sub Option 1 or 2 completed for 2022-23 school year
- 3 Renovate Kingsbury to PreK-8 (2 Classrooms per Grade) completed for 2022-23 school year

B Option C: Cost Breakdown		Gross Building Area	Range Total Project Cost		Range Net Cost to Waterbury		Remarks		
1	Build one new PreK-8 (3 Classrooms per Grade) in Northern Quadrant	116,000	\$ 67,100,000	to	\$ 75,600,000	\$ 23,300,000	to	\$ 25,800,000	
2	Renovate Wallace MS to PreK-8 (3 Classrooms per Grade) + Sub Option 1 or 2	132,200	\$ 65,500,000	to	\$ 73,800,000	\$ 14,000,000	to	\$ 15,500,000	
3	Renovate Kingsbury to PreK-8 (2 Classrooms per Grade)	76,000	\$ 41,700,000	to	\$ 47,000,000	\$ 8,900,000	to	\$ 9,900,000	
TOTAL:			\$ 174,300,000	to	\$ 196,400,000	\$ 46,200,000	to	\$ 51,200,000	

Notes:

- 1 Net cost to Waterbury figures are not guaranteed
- 2 Renovation projects include a \$1.5M allowance for hazardous material abatement
- 3 Renovation projects include a \$4M allowance for site work and improvements
- 4 New construction project includes an \$8M allowance for site work and improvements
- 5 Cost model includes owner soft costs at 30% of construction costs
- 6 Escalated to midpoint of construction
- 7 Includes \$460,000 for site acquisition and associated fees for new construction project (3 classroom per grade)
- 8 Excludes cost of swing space for renovation projects
- 9 Assumes renovation status granted for renovation projects
- 10 Models based on 2015 reimbursement rates: 78.57% for renovation projects and 68.57% for new construction



Key:

- Educational Specs, Site Search & Grant Application ★
- Design & Approvals
- Bidding
- Construction

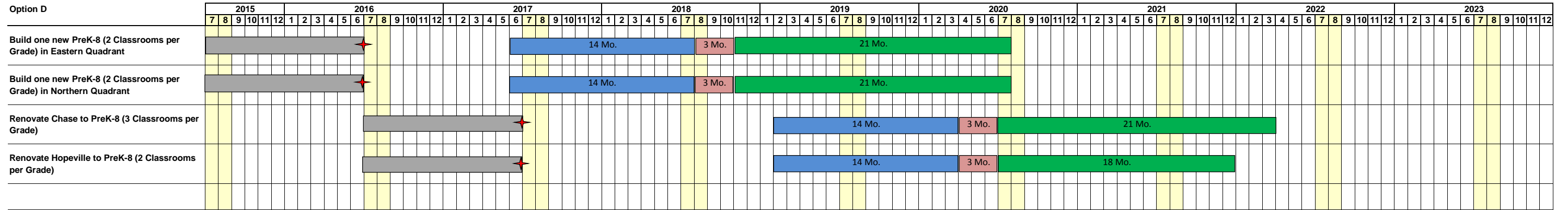
A Option D: Summary

- 1 Build one new PreK-8 (2 Classrooms per Grade) in Eastern Quadrant completed for 2020-21 school year
- 2 Build one new PreK-8 (2 Classrooms per Grade) in Northern Quadrant completed for 2020-21 school year
- 3 Renovate Chase to PreK-8 (3 Classrooms per Grade) completed for 2022-23 school year
- 4 Renovate Hopeville to PreK-8 (2 Classrooms per Grade) completed for 2022-23 school year

B Option D: Cost Breakdown		Gross Building Area	Range Total Project Cost		Range Net Cost to Waterbury		Remarks		
1	Build one new PreK-8 (2 Classrooms per Grade) in Eastern Quadrant	76,000	\$ 46,200,000	to	\$ 52,100,000	\$ 14,500,000	to	\$ 16,000,000	
2	Build one new PreK-8 (2 Classrooms per Grade) in Northern Quadrant	76,000	\$ 46,200,000	to	\$ 52,100,000	\$ 14,500,000	to	\$ 16,000,000	
3	Renovate Chase to PreK-8 (3 Classrooms per Grade)	116,000	\$ 61,200,000	to	\$ 68,900,000	\$ 15,400,000	to	\$ 17,100,000	
4	Renovate Hopeville to PreK-8 (2 Classrooms per Grade)	76,000	\$ 40,500,000	to	\$ 45,600,000	\$ 8,600,000	to	\$ 9,600,000	
TOTAL:			\$ 194,100,000	to	\$ 218,700,000	\$ 53,000,000	to	\$ 58,700,000	

Notes:

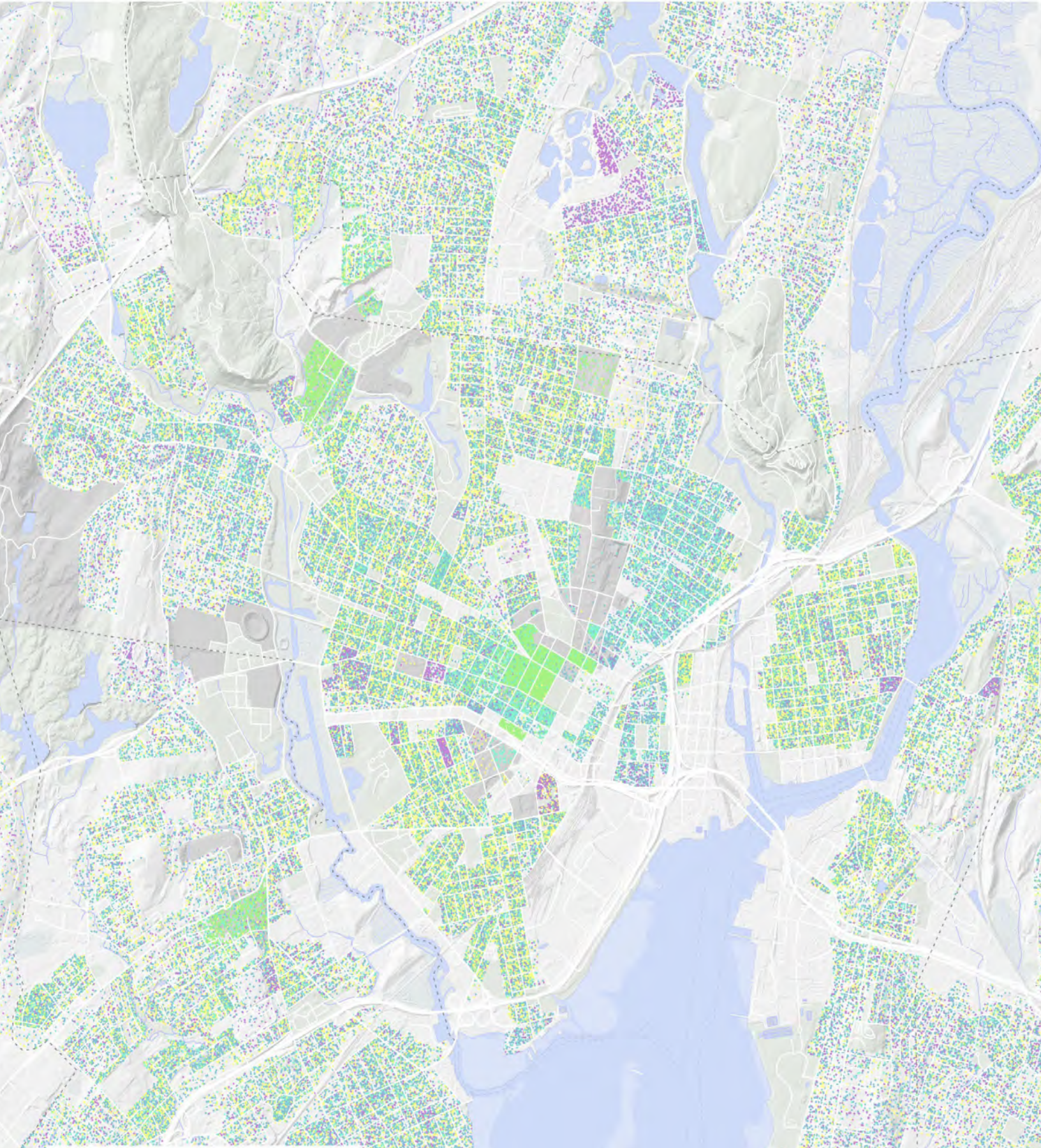
- 1 Net cost to Waterbury figures are not guaranteed
- 2 Renovation projects include a \$1.5M allowance for hazardous material abatement
- 3 Renovation projects include a \$4M allowance for site work and improvements
- 4 New construction projects include a \$6M allowance for site work and improvements
- 5 Cost model includes owner soft costs at 30% of construction costs
- 6 Escalated to midpoint of construction
- 7 Includes \$400,000 for site acquisition and associated fees for new construction projects (2 classroom per grade)
- 8 Excludes cost of swing space for renovation projects
- 9 Assumes renovation status granted for renovation projects
- 10 Models based on 2015 reimbursement rates: 78.57% for renovation projects and 68.57% for new construction



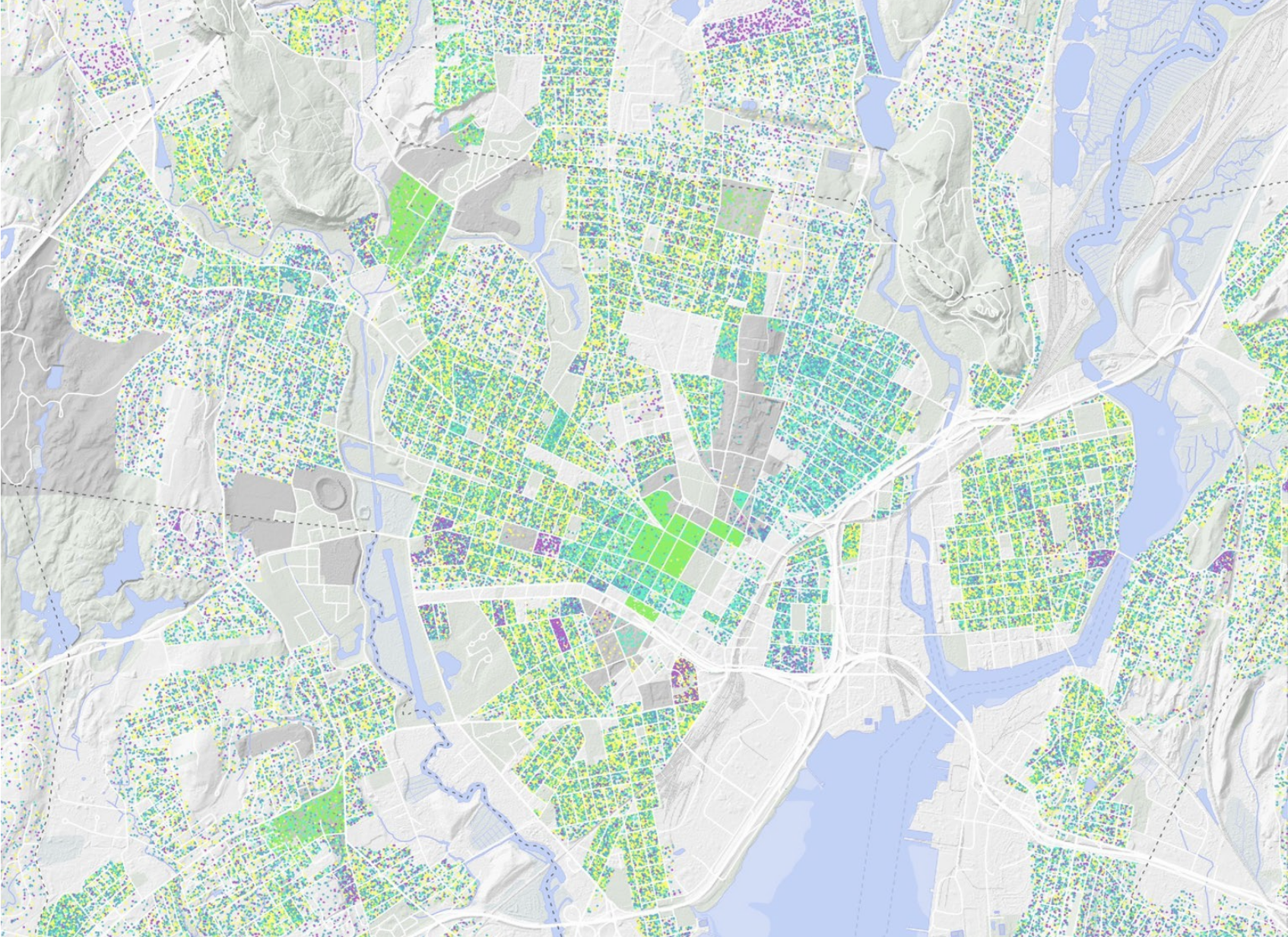
Key:

- Educational Specs, Site Search & Grant Application
- Design & Approvals
- Bidding
- Construction

A	Option Comparison	Range		Range		Remarks
		Total Project Cost		Net Cost to Waterbury		
1	Option A	\$ 176,400,000	to \$ 198,900,000	\$ 47,000,000	to \$ 51,900,000	
2	Option A1	\$ 172,800,000	to \$ 194,800,000	\$ 46,200,000	to \$ 51,000,000	
3	Option B	\$ 191,600,000	to \$ 215,900,000	\$ 49,900,000	to \$ 55,300,000	
4	Option C	\$ 174,300,000	to \$ 196,400,000	\$ 46,200,000	to \$ 51,200,000	
5	Option D	\$ 194,100,000	\$ 218,700,000	\$ 53,000,000	\$ 58,700,000	



Architecture + Art



SVIGALS + PARTNERS



**New Haven Public Schools
Long-Range Facilities
Planning Study**

INTERVIEW
April 16, 2021

SVIGALS + PARTNERS



Jay Brotman, AIA
Partner-in-Charge



Julia McFadden, AIA, ALEP
Principal / Project Manager

 SLAM



Glenn Gollenberg, AIA
Principal



Kemp Morhardt, AIA
Principal / Project Manager

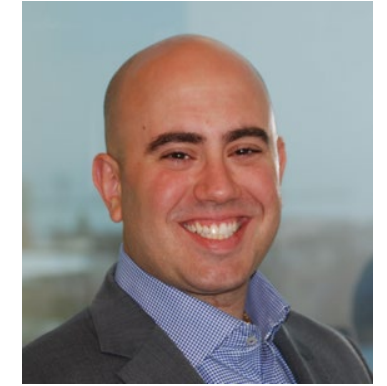
 SLR
Milone & MacBroom



Patrick Gallagher, AICP
Planner



James Dolan, PE, CEM, BCXP, LEED AP
Principal – Energy Engineering



Nicholas D'Agostino, RCDD, PSP, PMP
Senior Manager

+ TWO ARCHITECTURE FIRMS – STAFFING & EXPERTISE

SVIGALS + PARTNERS

38 YEARS IN BUSINESS

03 Office Locations

45+ Industry Awards

SECTORS

Civic-Cultural

Healthcare

Higher Education

K12 EDUCATION

Mixed-Used/Residential

Science & Technology

Workplace

29 Staff Members

13 LICENSED ARCHITECTS

03 Interior Designers

04 LEED AP Certified

01 WELL AP Certified

Connecticut Certified
SMALL BUSINESS ENTERPRISE

SLAM

45 Years in Business

09 Office Locations

250+ INDUSTRY AWARDS

SECTORS

Corporate

Healthcare

Higher Education

K12 EDUCATION

Specialty

270+ Staff Members

94 Licensed Architects

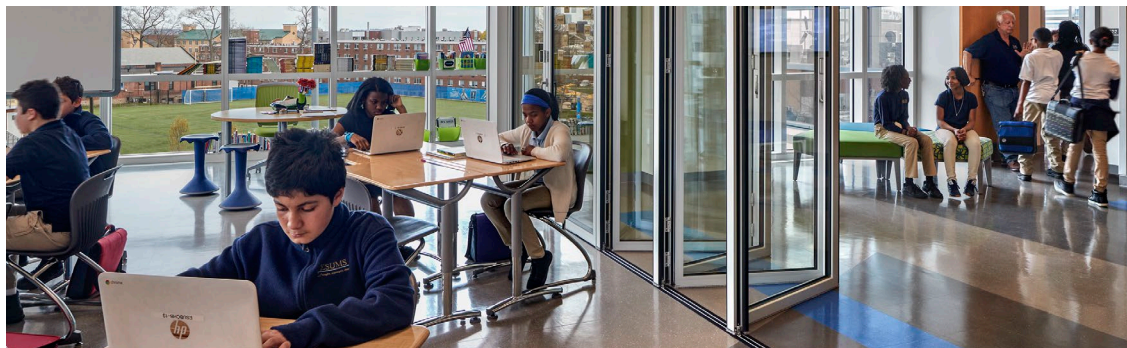
59 Designers

09 Landscape Designers

19 Interior Designers

70 LEED AP Certified

03 WELL AP CERTIFIED



+ WE KNOW NEW HAVEN SCHOOLS

SVIGALS + PARTNERS

Edgewood Magnet School



John S. Martinez STEM Magnet School



L.W. Beecher Magnet School



Columbus Family Academy



Engineering & Science University Magnet School



SLAM



Metropolitan Business Academy



Celentano Biotech, Health Medical Magnet School



James Hillhouse High School



Floyd Little Athletic Center



Beaver Ponds Park MP & Bowen Field Renovation

+ OUR TEAM AT A GLANCE

SVIGALS + PARTNERS



Milone & MacBroom



**LEAD ARCHITECT
EDUCATIONAL PLANNING**

**ASSOCIATE ARCHITECT
EDUCATIONAL PLANNING
COST ESTIMATING**

**DEMOGRAPHICS / ENROLLMENT
SITE / CIVIL / TRAFFIC / LANDSCAPE**

**MEP/FP ENGINEERING
ENERGY PERFORMANCE ANALYSIS**

TECHNOLOGY ENGINEERING

K12 School Design Studio
ALEP Staff

K12 School Design Studio
ALEP Staff

Rewrote New Haven Zoning
standards for Whalley, Grand and
Dixwell Avenues

NH School Construction Program:
Energy Modeling of 24 New Haven
Schools

State of Connecticut Licensed
Telecommunications Layout
Technician

Designed 5+ New Haven Schools
OSCGR Familiarity

Designed 5 New Haven Schools
OSCGR Familiarity

Reporting for New Haven
Community Development and HUD

Recent similar assessment for
Westport Public Schools

Office Located in New Haven

New Haven School Energy
Committee

New Haven School Energy
Committee

Lessons Learned from Danbury
Security Infrastructure Study

30% Staff live in New Haven

Leadership on local boards and
councils

NH School Construction Program:
Developed construction standards

CT K12 Project Cost Database

COVID Back-to-School Toolkit

New York City School Construction
Authority (SCA):

Numerous Energy/Sustainability
studies

4 Engineering teams performed
IAQ survey

Sensitive & Creative Engagement
of Communities: starting with 1st
School in the New Haven SCP
(Edgewood School)

5 Recent Similar Studies:
Waterbury / Hartford / Groton / Ridgefield

+ APPROACH

SVIGALS + PARTNERS



Milone & MacBroom



PROJECT KICK-OFF
Establish Working Group

TASK B:
Curricular and Programmatic Priorities

TASK A:
Demographics Study
Enrollment Projections

TASK C: FACILITY CONDITIONS, CAPACITY & UTILIZATION ANALYSIS

Architectural Facility Conditions Review
Facility Capacity & Utilization Assessment

Site Condition Assessment
Civil / Traffic / Landscape

MEP/FP Conditions Review
Energy Performance Analysis

Technology Infrastructure
Analysis

**TASK D: MASTER PLANNING
FACILITY BEST-USE ALTERNATIVES: 3 SCENARIOS**

Quality Assurance
Final Report

Cost Estimating

Site / Traffic Considerations
& Recommendations

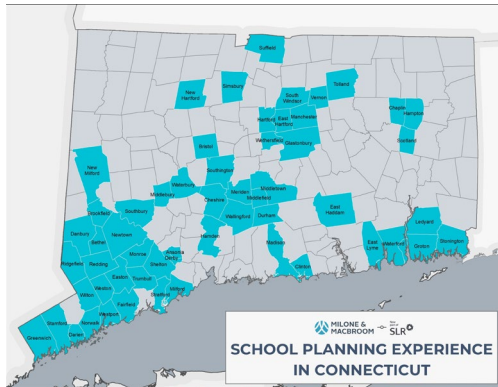
District Energy Consumption
Alternatives &
Recommendations

Technology Infrastructure
Recommendations

+ TASK A: DEMOGRAPHICS & ENROLLMENT



Milone & MacBroom

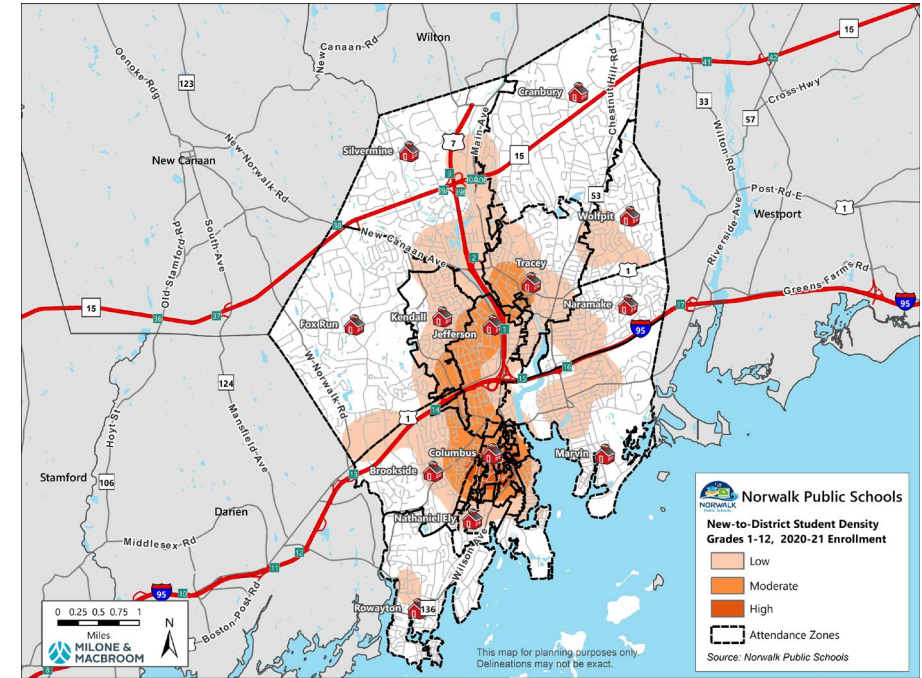


Project Initiation

Kickoff meeting with NHPS Working Group

Housing, Economy, and Demographics Enrollment Trends and Educational Landscape Enrollment Projections

- Assess regional, local, and neighborhood level demographic and enrollment trends
- Account for enrollment impacts of the pandemic
- Develop districtwide and facility-specific enrollment projections
- Understand where seat surpluses and seat deficits exist
- Enrollment projections, coupled with capacity and utilization analysis, will inform the development of Facility Best-Use Alternatives



Not Covered:

Re-districting maps for attendance zones

+ TASK B: CURRICULAR & PROGRAMMATIC PRIORITIES



Accredited Learning
Environment Planner (ALEP)

Julia McFadden, AIA, ALEP
Amy Mund Christmas, ALEP



2 to 3 Workshops with Working Group & NHPS

Review NHPS Strategic Plan & School Improvement Plans –
Discuss / Understand / Outline Goals & Strategies:

Curriculum and educational trends:

- Existing programs and establishment of new programs
- Delivery process (In-person / Remote learning / Hybrid learning)
- [Technology infrastructure](#)

Parity of facilities and programs (between individual schools and across the district):

- Safety and Security
- Interior environment (i.e. comfort, daylighting, flexible environments)
- Exterior environment (i.e. playgrounds, fields, outdoor classrooms,)
- Community resources and access
- [Technology access](#)

Grade configuration:

- Neighborhood schools, Magnet schools, singular middle, HS)
- Equity balancing objectives
- Transportation and student travel time/ distance

+ TASK C: FACILITY CONDITIONS, CAPACITY AND UTILIZATION ASSESSMENT



NHPS facility
inventory has been
built New or
Renovated over the
past 25 years

Architectural Facility Conditions Review

Standards Work Session: Physical Assessment Criteria

Office review of Existing Documentation:

- Original Drawings & Specifications
- Asset Data Reports & Facility Studies
- Repair/Maintenance Records

Targeted Field Visits:

- 4 Elementary Schools
- 1 Middle School
- 1 High School
- All 4 Auxilliary Buildings
- 54 Meadow Street

Meetings / Interviews (phone)

Facility Condition Assessment:

Matrix: Ranking exterior and interior materials/finishes
Current condition and Remaining life span
Prioritization for Repairs & Replacements

Costs: Rating of deferred maintenance

Facility Capacity & Utilization Assessment

Standards Work Session: Assessment Criteria

Office review of Usage Documentation:

- Floor Plans – provided by NHPS principals or staff
Assigning the following for each space:
 - Current Use & Type
 - Grade level classroom
 - Math, English, Social Studies, World Language, Special Ed, etc.
- Schedule information regarding use
(i.e. how many periods per day is the space in use)
- Special program accommodations

Utilization Report:

- Inventory of spaces noting Functional Capacity
- Comparisons of Enrollment Trends versus Capacity

Field Visits will not be conducted to every Facility by:
S+P / SLAM / OLA / D'Agostino

Only SLR will visit every site

+ TASK C: FACILITY CONDITIONS, CAPACITY AND UTILIZATION ASSESSMENT



Milone & MacBroom

Site Condition Assessment Civil / Traffic / Landscape

Field visits to each school site:

- Site Circulation / Traffic
- Playgrounds
- Athletic Fields
- Sidewalks / curbs
- Parking areas

Conditions Rating 1 to 4

Create site diagrams



MEP/FP Conditions Review Energy Performance Analysis

Office review of MEP/FP systems:
Drawings / Specifications / Studies
Reports / Utility data

Document Age and Condition

Assign Rating:

New / Good / Fair / Replace

Energy performance:

Summarize thru 2019

Indicative of potential operational
issues or tuning needed



Technology Infrastructure Analysis

Office review of Communication Cabling
infrastructure:

Construction Documents & Drawings
Reports / Data

Document age and type:

- Cable Category type for copper horizontal and Fiber backbone.
- Data room environment
- Data Rooms:
 - Size / Grounding / Cooling System
 - Shared use with electrical, custodial, storage, etc.

Not Covered In Technology Review:

Review & Assessment of:

Public Address / Master Clock / AV systems
Phone / Security Equipment / Wireless Access
Network Electronics / Firewalls / Servers
Desktop equipment / Printers

SVIGALS +
PARTNERS

 SLAM

 SLR

Milone & MacBroom

Standards Work Session with Working Group / NHPS:
Develop Criteria & Priorities

Engagement of User Groups to Review:
Demographics & Enrollment Trends & Implications
Facility Conditions Report
Capacity & Utilization Report

Develop Consensus-driven Vision

Considerations:
Grade configurations
Parity / Access
Transportation
Impacts to families and neighborhoods
Infrastructure Costs
City Debt-service capabilities

Conceptual Block Diagrams to illustrate:
Getting out of Leased space
New facilities
Additions to Existing facilities
Interior Reconfigurations of Spaces
Consolidation / Retirement of Facilities
Site & Traffic Improvements

Implementation Timelines

Cost Estimates



District Energy Consumption Alternatives & Recommendations

Consider / Plan / Recommend:

- Future system operation
- Energy conservation measures
- Carbon reduction measures
- Energy consumption reduction
- Renewable energy strategies
- Other system considerations as they relate to the evolution of energy supply



Technology Infrastructure Recommendations

Recommendations for:

- Retain, supplement, replace, or relocate cabling systems and data rooms
- How to address technology Access & Equity issues illuminated by Covid
- Apply for federal Covid funding for Security/Technology retrofits

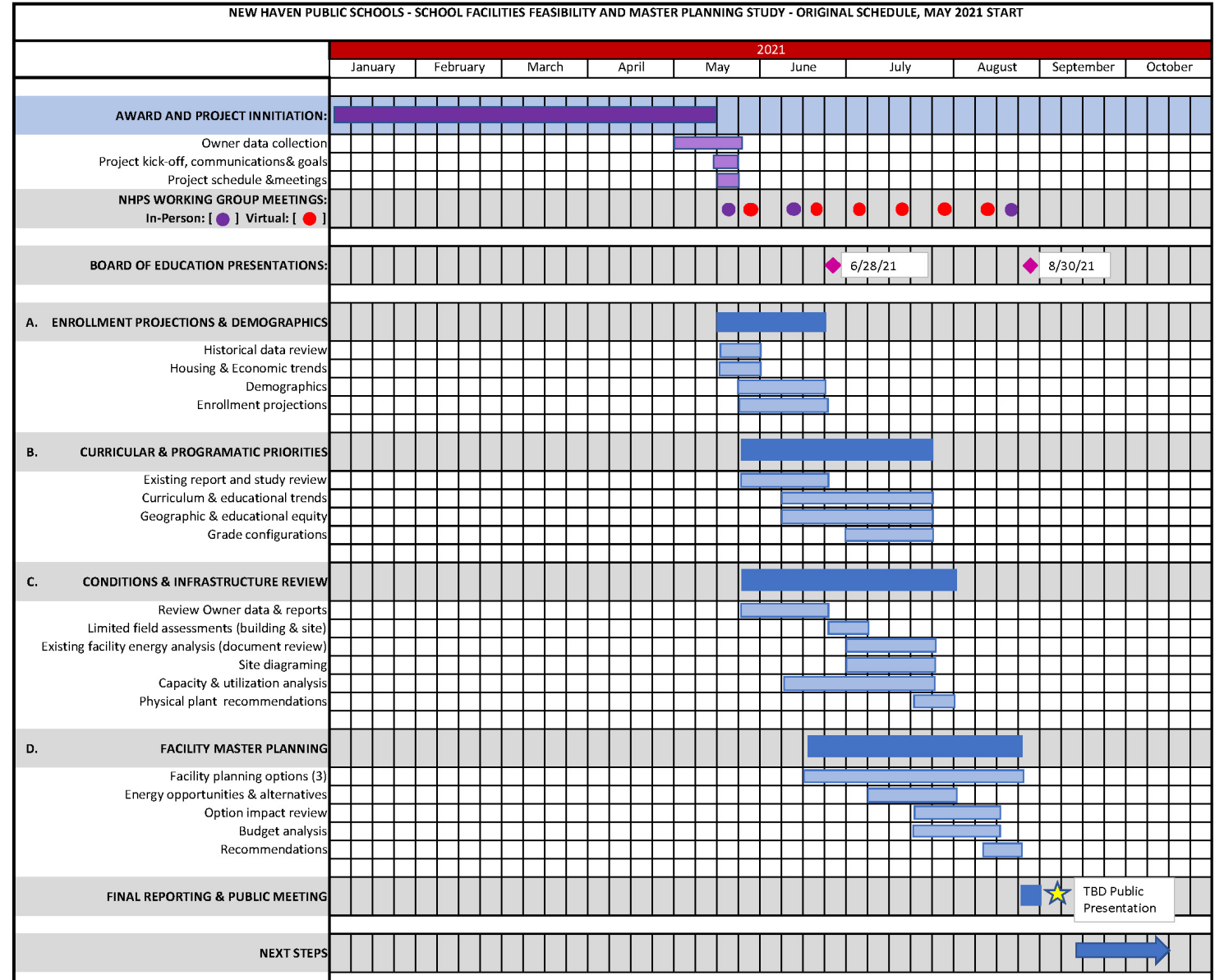
+ PROJECT SCHEDULE – ORIGINAL SET TO MEET 2021 GRANT CYCLE

ORIGINAL SCHEDULE

Compacted to 4 months

SLAM/SLR experience with the Hartford study:
The Timeline was rushed – and community felt not involved/consulted well enough

Lesson Learned:
Give the schedule more time to ensure positive community perspective



+ PROJECT SCHEDULE – OPTIMIZED TIMEFRAME MEETS 2022 GRANT CYCLE

OUR APPROACH

Optimize success with a longer schedule of 6 +/- months

Summer 2021:

Good for field work to facilities when less occupied

May allow applications for Covid funds

Fall 2021:

Better time for engagement with communities and City leaders when they are ready to engage after summer vacations and before the rush of the holiday season

