

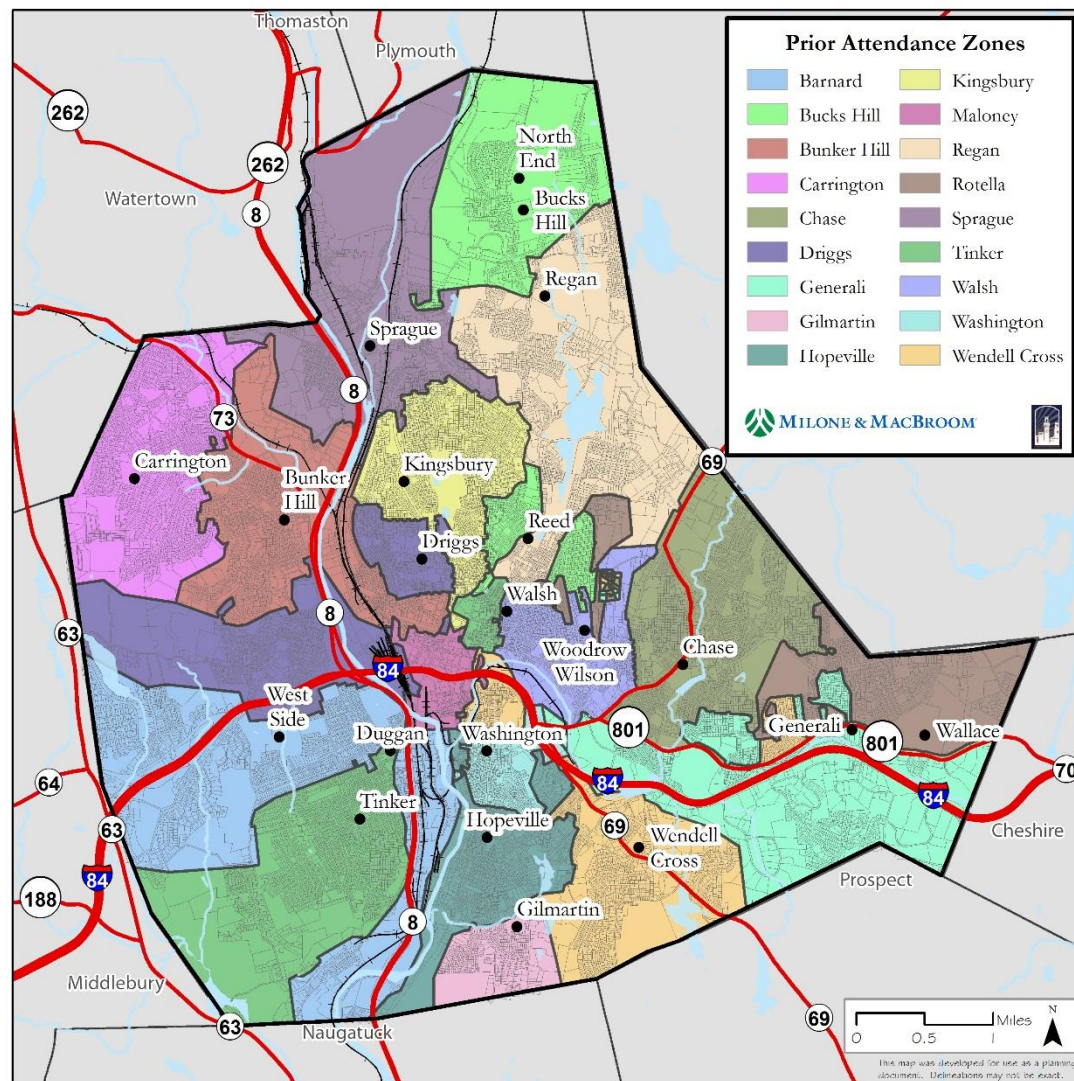


Public School Facility Utilization & Redistricting Study

School Facilities Utilization and Redistricting Study

DRAFT

June 15, 2015





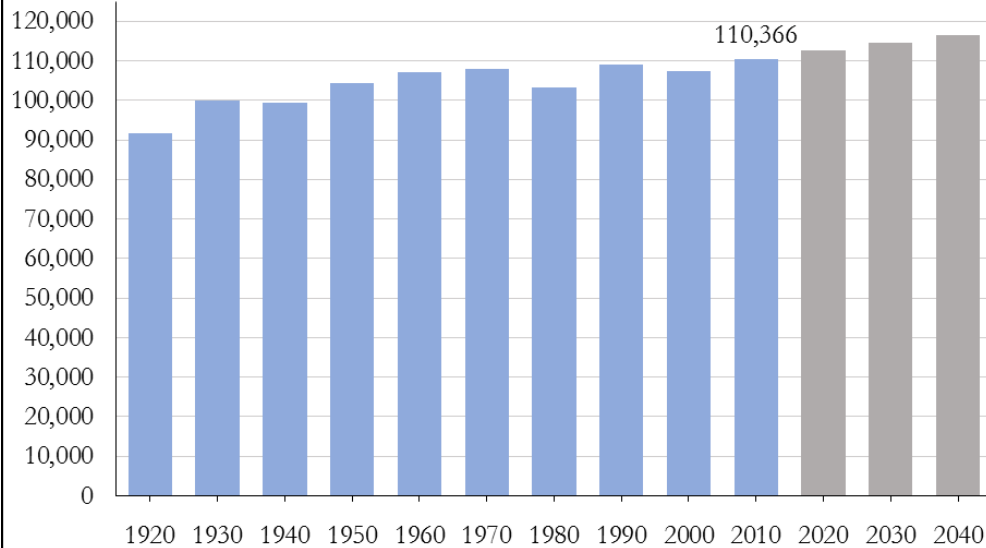
Introduction

- ◇ **Factors Influencing Enrollments**
 - ◇ **Demographics**
 - ◇ **Housing**
 - ◇ **Enrollment Patterns and Trends**
- ◇ **Enrollment Projections**
- ◇ **Facilities Capacity and Utilization**
- ◇ **Draft Recommendations for Discussion**
- ◇ **Next Steps...**

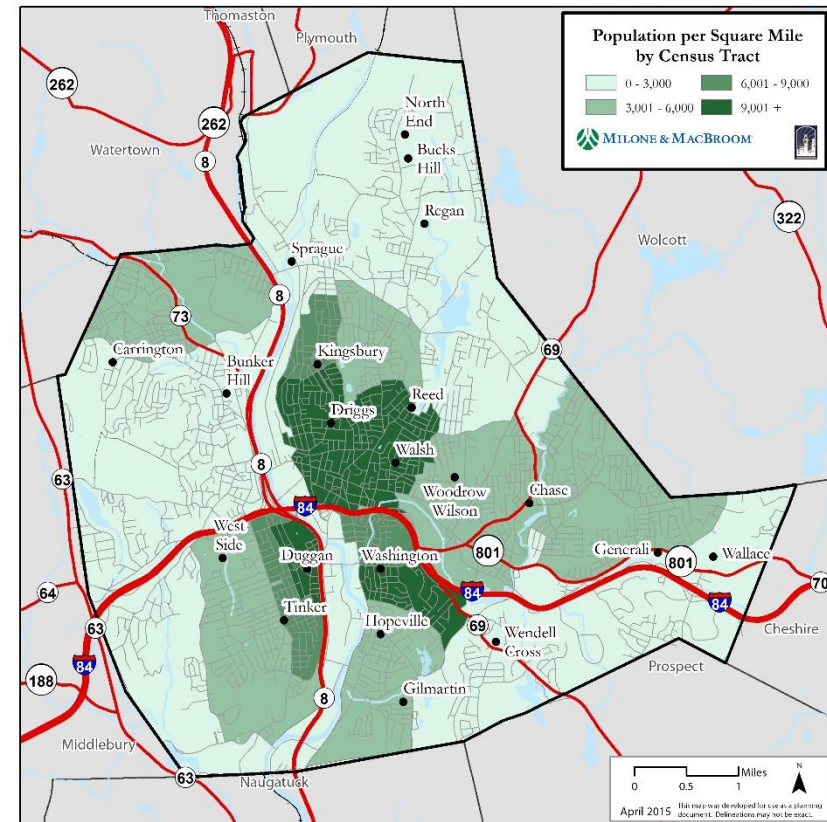


Total Population

Waterbury Total Population
Historic and Projected



Sources: US Census, CT DOT

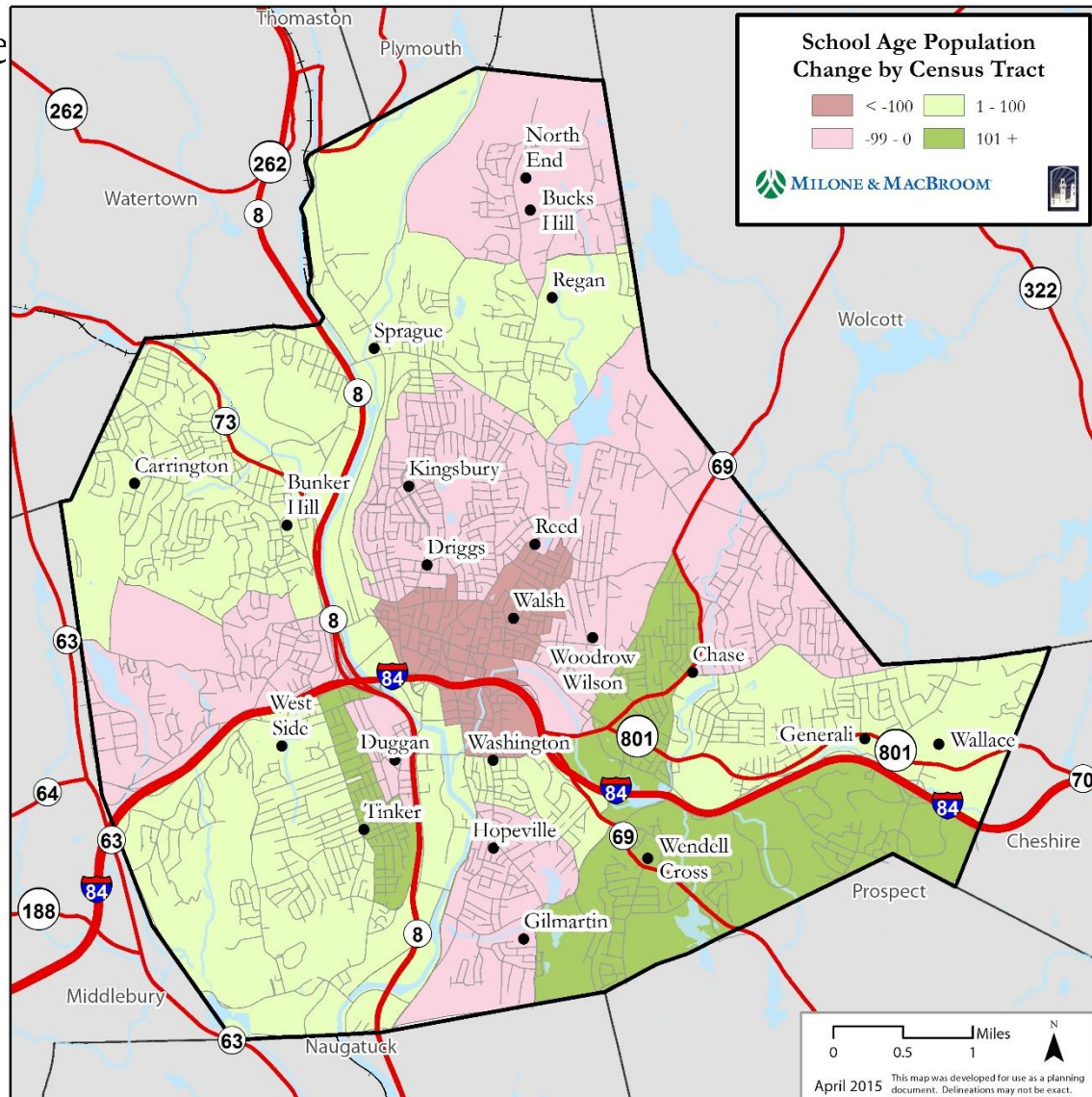


- ◇ Highest ever recorded population in City in 2010
- ◇ Projected to continue to grow
- ◇ Greatest density in center, south end, and eastern neighborhoods



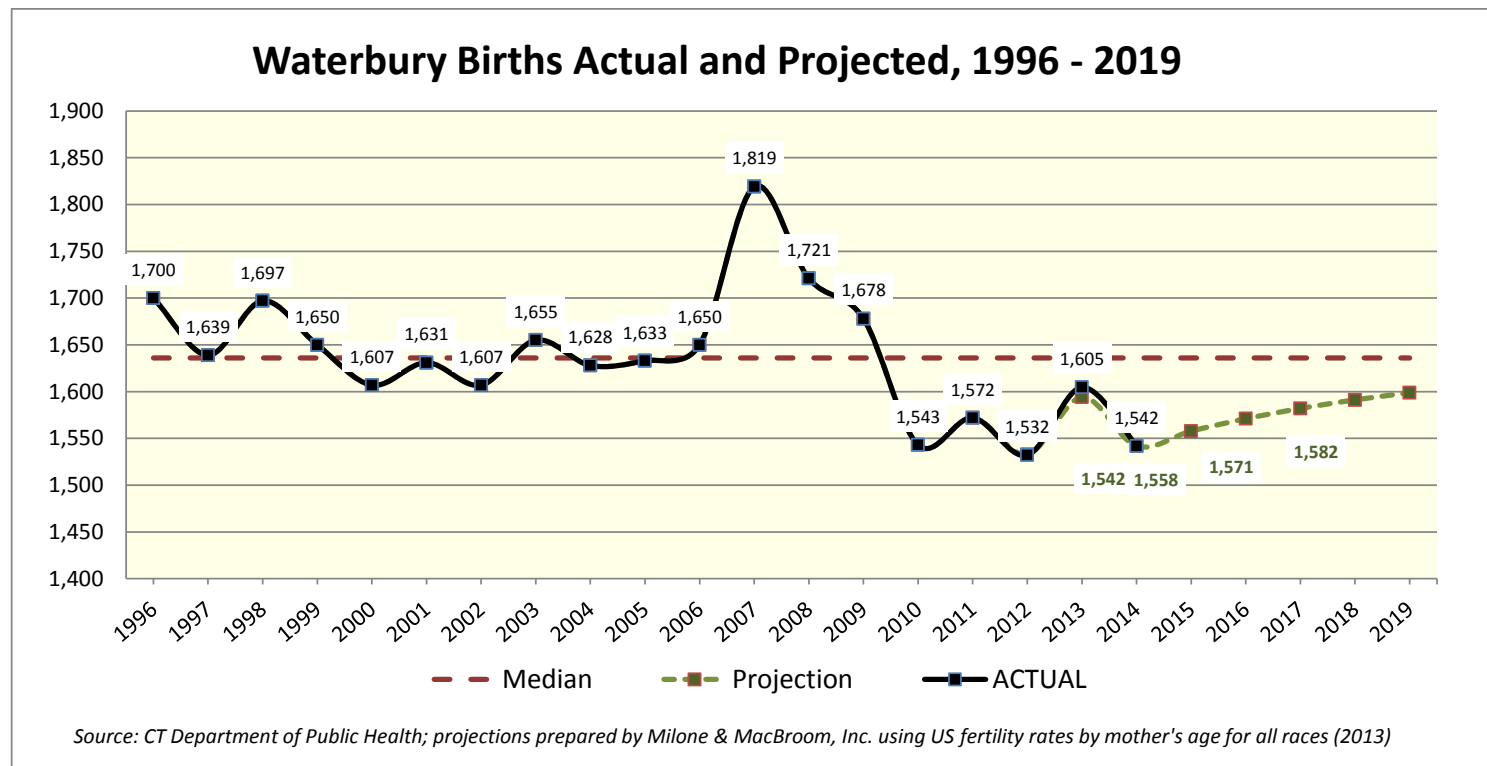
Population Change

- ◇ Total population increase 2.9% from 2000 to 2010
- ◇ Total school age population stable from 2000 to 2010 (.3% increase)
- ◇ 10% of total population ages 5-17 that speaks a language other than English reports speaking English less than “very well”
- ◇ Self-reported Census data
- ◇ Under-reporting





Resident Births



- ◇ Large spike in births 2007-2009
- ◇ Incoming Kindergarten classes of 2012-2014
- ◇ Births fell significantly below long-term median beginning in 2010



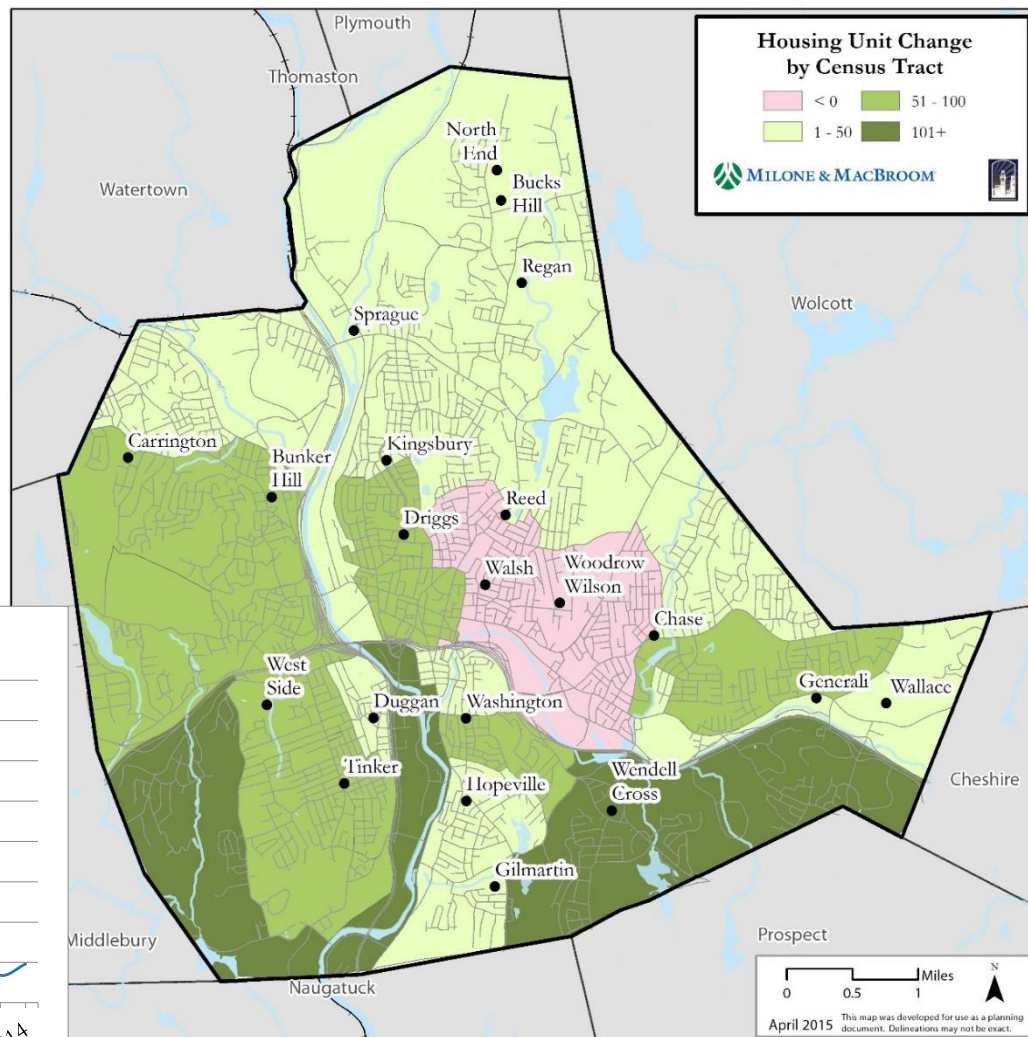
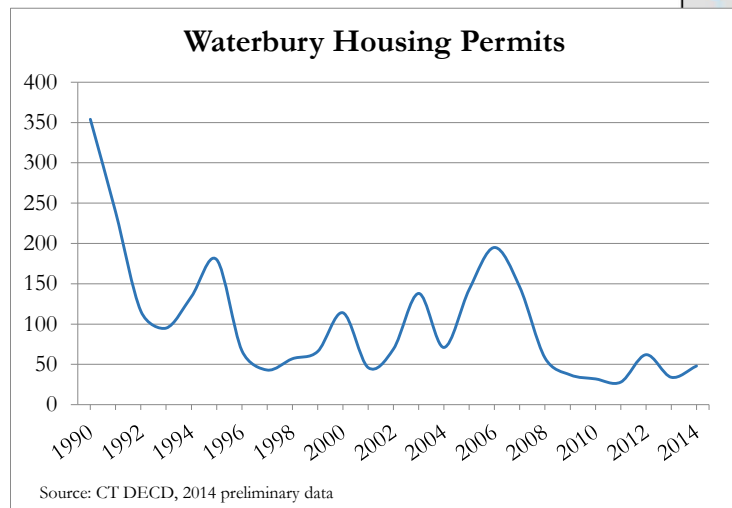
Demographics Key Findings

- ◇ Highest population levels ever and continuing to grow
- ◇ Eastern neighborhoods, such as East Mt., East End, Bouley Manor, Mill Plain, Scott Rd., Reidville, experiencing most growth
- ◇ English language learning need greatest in core and eastern side of City
- ◇ Unusually large spike in births from 2007 – 2009 likely influence on current elementary enrollments
- ◇ Lower than usual annual births began in 2010 and are projected to continue at lower than usual rates



Housing Unit Change

- ◇ Housing units increased in western and eastern portions of City from 2000 to 2010
- ◇ New development lagged since Recession
- ◇ No major residential developments in permitting process

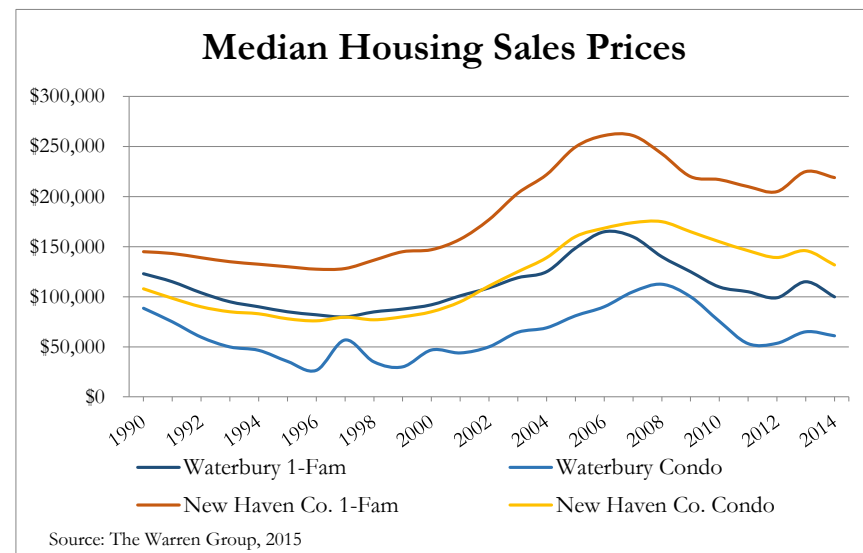
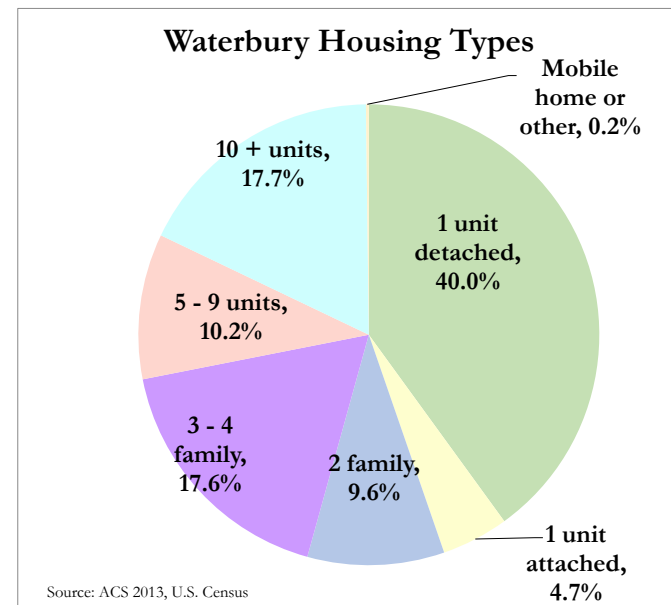




Housing Types

- ◇ Just over 50% of housing stock is apartment-style
- ◇ Affordable ownership units relative to region
- ◇ 785 public housing units and 2,936 Section 8 vouchers administered by WHA

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





Households

- ◇ Family households make up 59% of all households
- ◇ 64% of all family households consist of 3 or more persons
- ◇ Non-family households are made up primarily of householders living alone (84%)

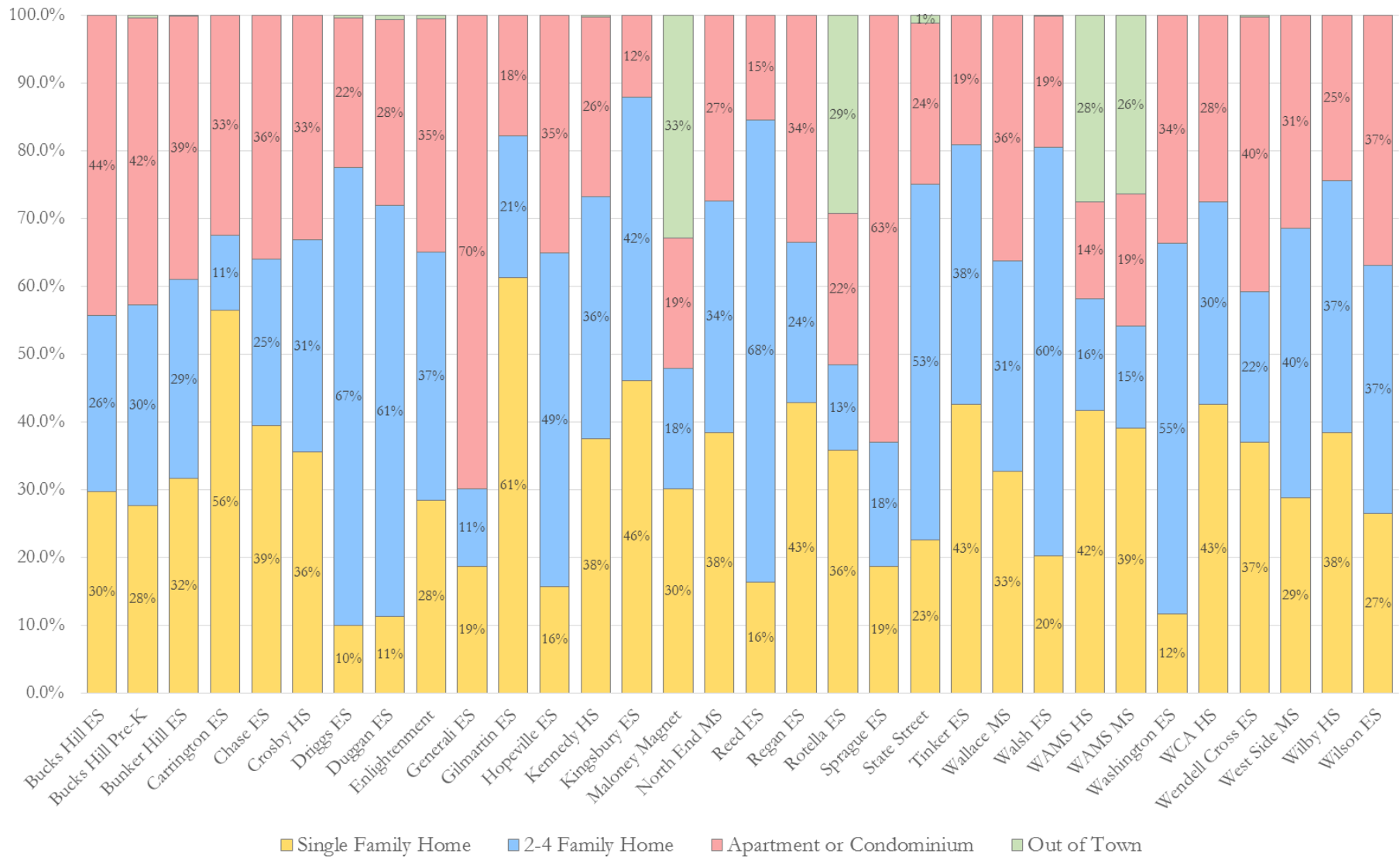
Waterbury Households

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

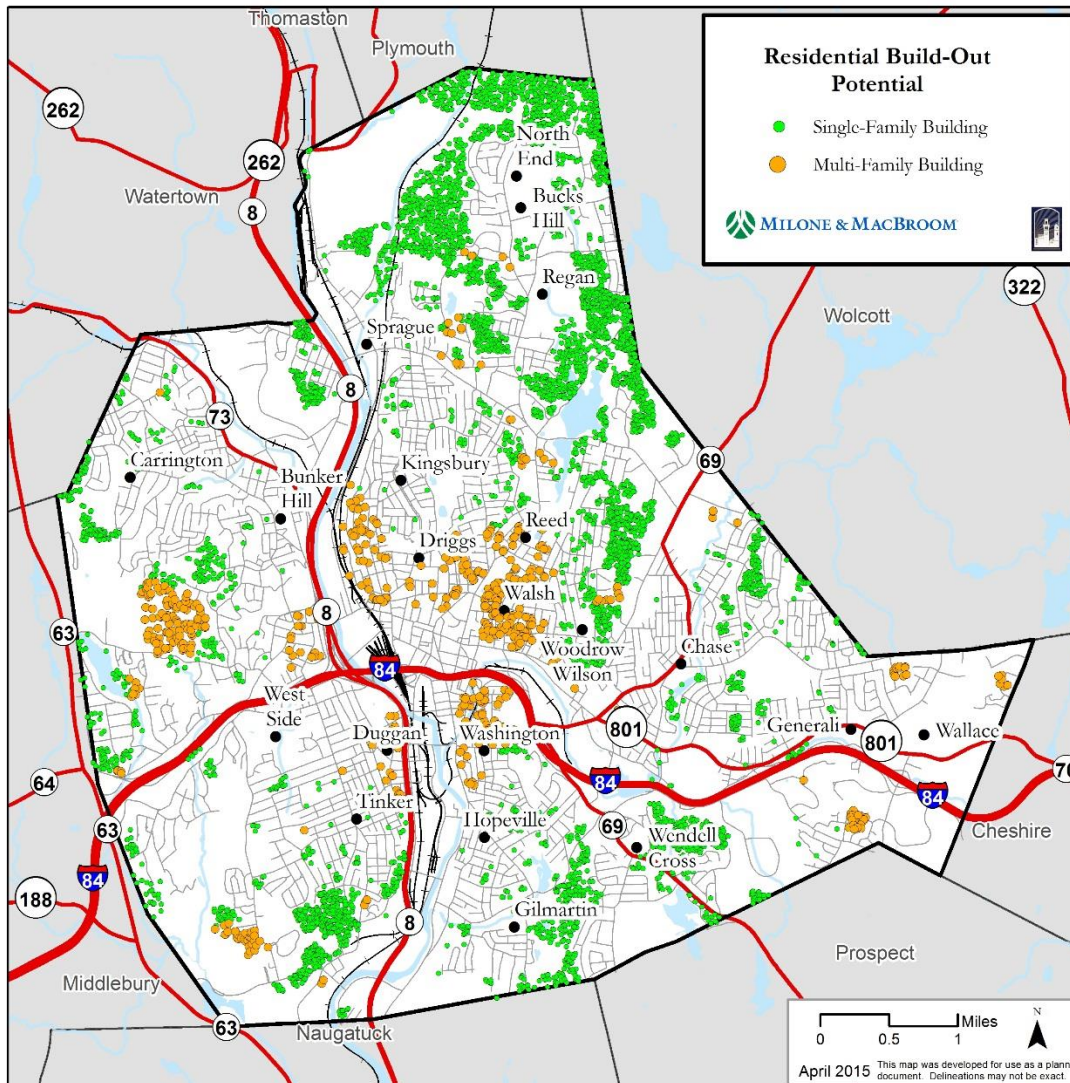
Source: ACS 2013



Enrollment by Housing Type



Residential Build-Out Analysis



Single-Family Build-Out

- ◇ 5,600 potential single-family dwelling units

Multi-Family Build-Out

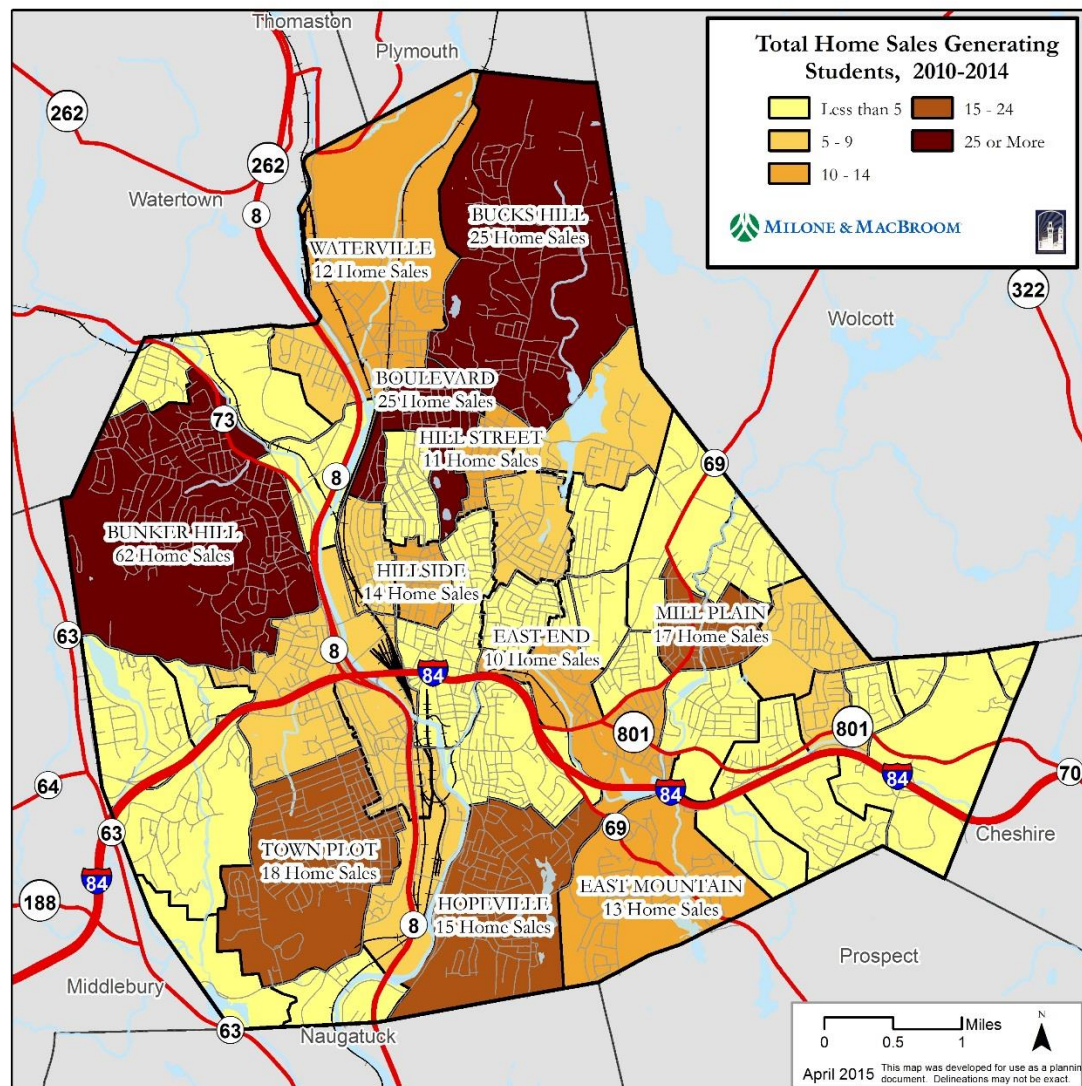
- ◇ 4,230 potential multi-family dwelling units

Total Residential Build-Out

- ◇ 9,830 potential new dwelling units
- ◇ 24,968 new residents



New Students Generated by Home Sales



- ◇ **New enrollment from home sales is limited**
 - ◇ 308 new students were matched to home sales between 2010 and 2014
 - ◇ 42 grade 9-12 students
 - ◇ 258 grade K-8 students
 - ◇ Covers home sales during the 9 months prior to enrollment (Jan – Sep)
- ◇ **Neighborhoods with highest rates of student generation from 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

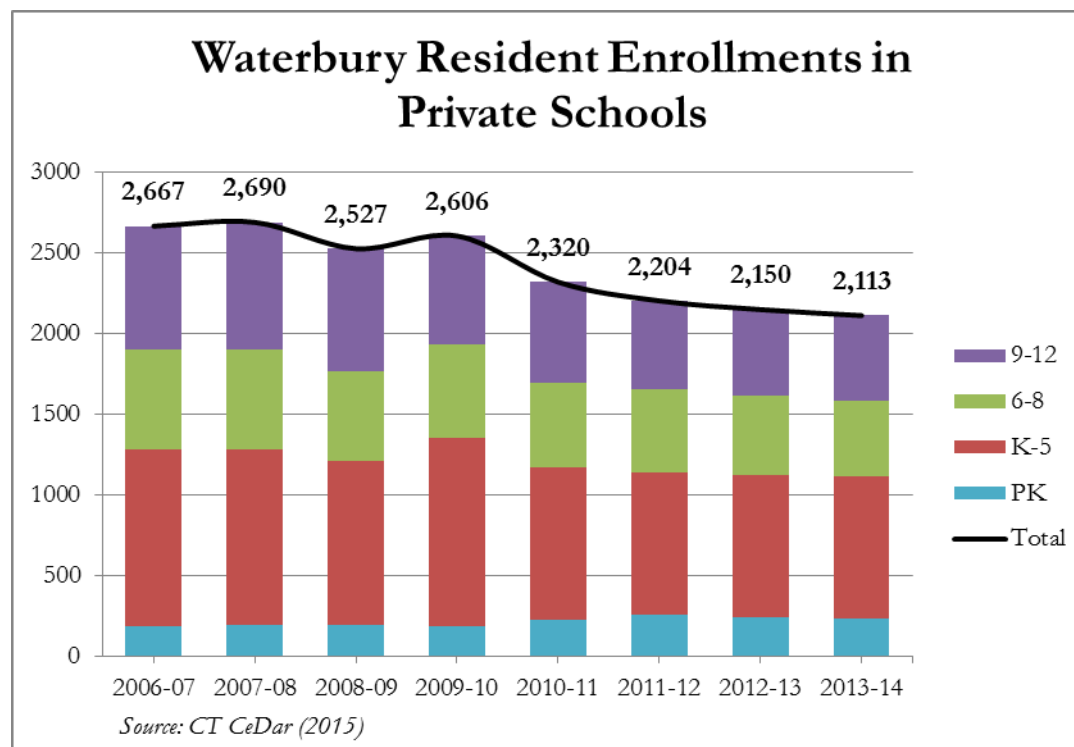


Housing Key Findings

- ◇ Housing unit increases affecting eastern and western areas of City
- ◇ Residential types scattered throughout City; however, the composition of residential land uses by school attendance zone vary widely
- ◇ Relatively little new construction permitted in the last five years
- ◇ Significant rental housing stock naturally lends itself to more transient population
- ◇ Housing sales not a significant driver of enrollment



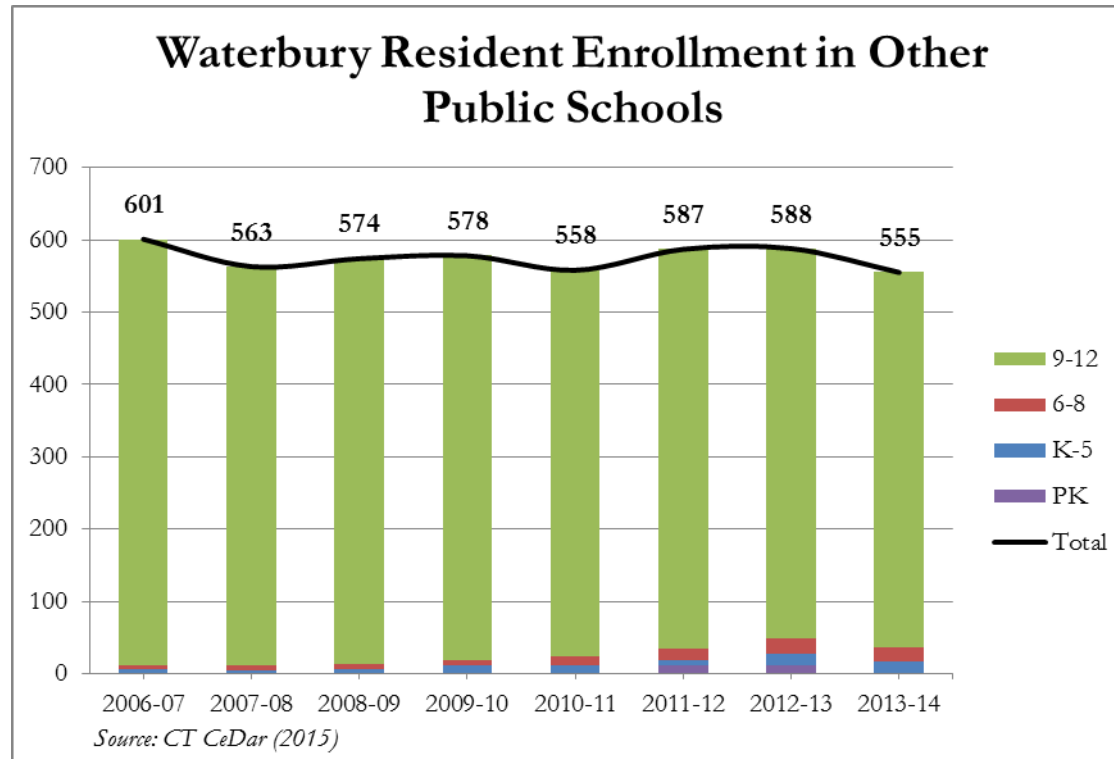
Non-Public School Enrollment Trends



- ◇ Declining private school enrollments since Great Recession began
- ◇ Largely parochial schools in the region – declining enrollment and closures



Other Public School Enrollment Trends

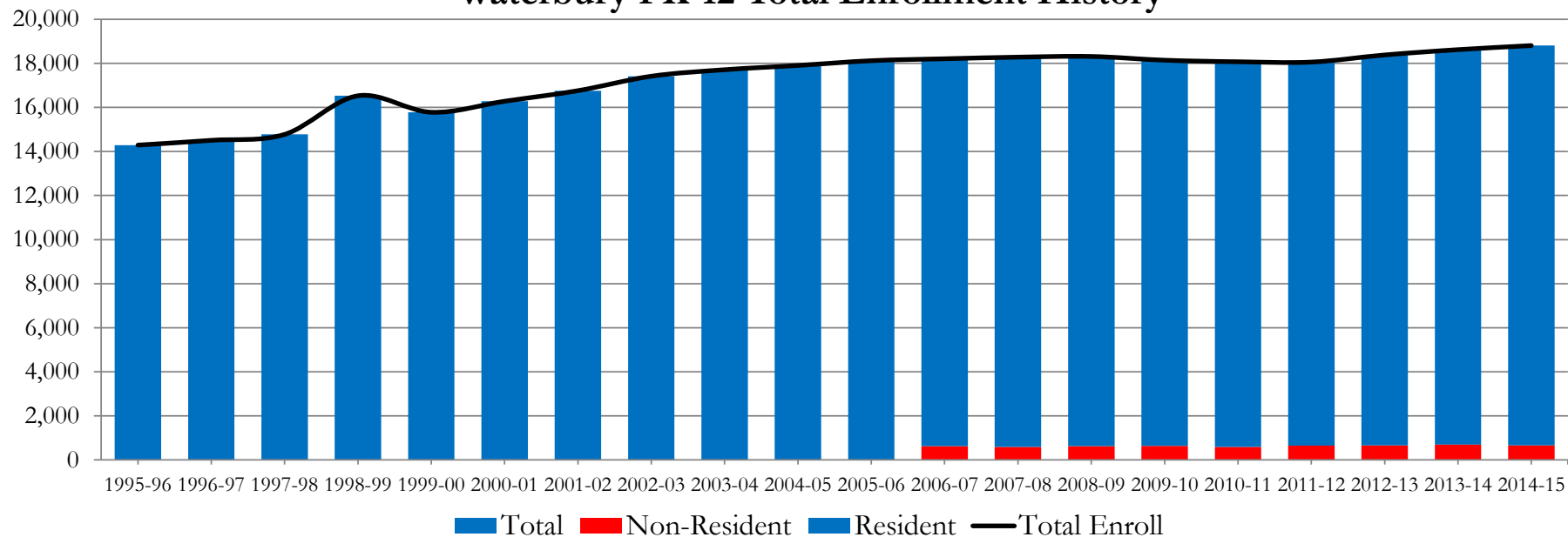


- ◇ Enrollments in other public schools relatively stable
- ◇ Primarily high schoolers enrolling in technical schools



PK-12 WPS Enrollment Trends

Waterbury PK-12 Total Enrollment History



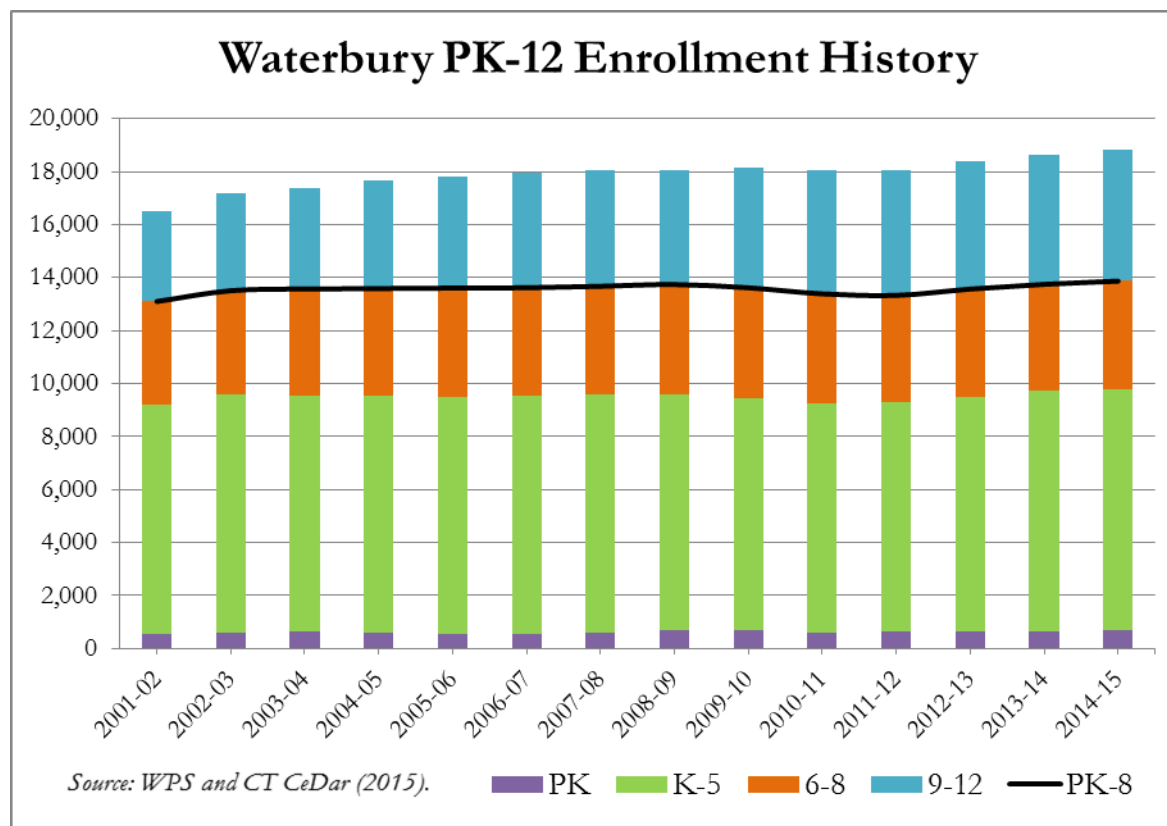
Non-resident student data not available prior to 2006-07; however, non-resident magnet school students prior to 2006-07 are included in the total enrollment.

Sources: CSDE CEDaR and WPS

- ◇ Total enrollment increased 4.1% over the last four years
- ◇ Non-resident enrollments in WPS stable around 650 per year



PK-12 WPS Enrollment Trends



- ◇ Total K-8 enrollment increased 3.8% the last four years
- ◇ Largely the result of K-5 increases, which increased 5.0%



PK-12 Enrollment History

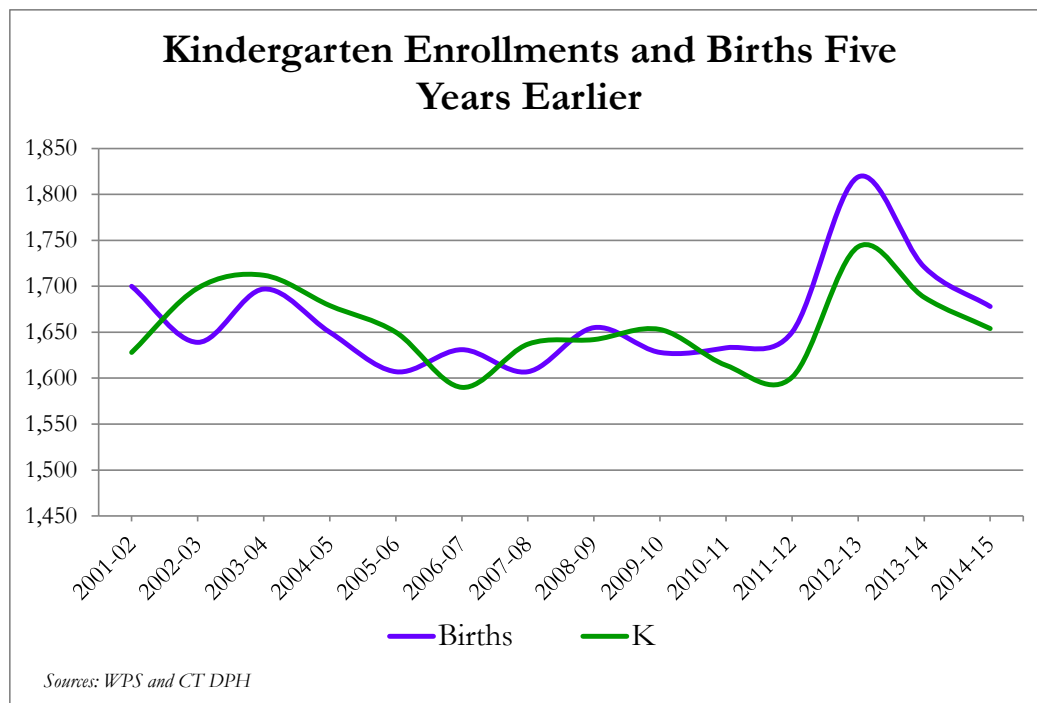
Year	Birth Year	Births	PK	K	1	2	3	4	5	6	7	8	9	10	11	12	PK-8	9-12	PK-12
2001-02	1996	1,700	523	1,628	1,550	1,416	1,441	1,381	1,274	1,331	1,299	1,261	1,207	884	694	629	13,104	3,414	16,762
2002-03	1997	1,639	590	1,698	1,625	1,422	1,429	1,430	1,385	1,309	1,377	1,248	1,331	909	749	675	13,513	3,664	17,418
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

State Department of Education - Public School Information System, Summary Report, Waterbury Public Schools for 2009-10 through 2014-15.

◇ Enrollment history used to generate persistency ratios in order to project enrollments



Incoming Classes Compared to Births



District	2011-12 to 2013-14 Average Birth-K Ratio
Waterbury	0.970
Danbury	0.758
Bridgeport	0.793
East Hartford	0.74
Hartford	0.821
Manchester	0.714
Meriden	0.800
New Haven	0.836
Norwalk	0.727
Stamford	0.746

- ◇ Incoming class sizes are generally responsive to birth numbers five years prior
- ◇ Recent increases in incoming class sizes clearly correspond to birth spike of 2007 – 2009
- ◇ Unusually high Birth – K for an urban Connecticut community – attractive district for families



K-8 Enrollment History by School

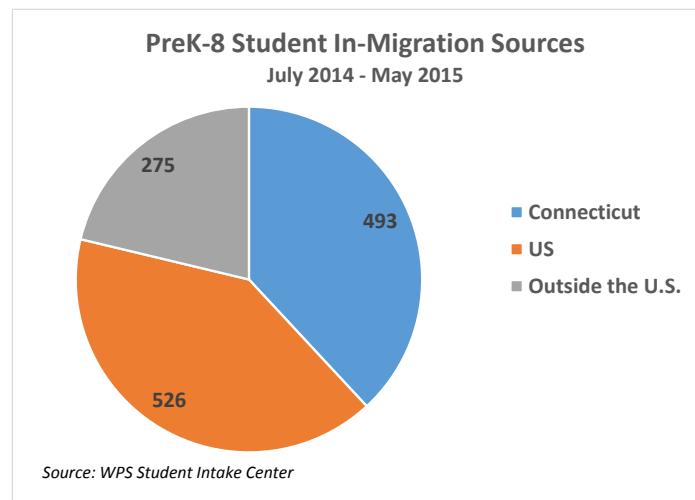
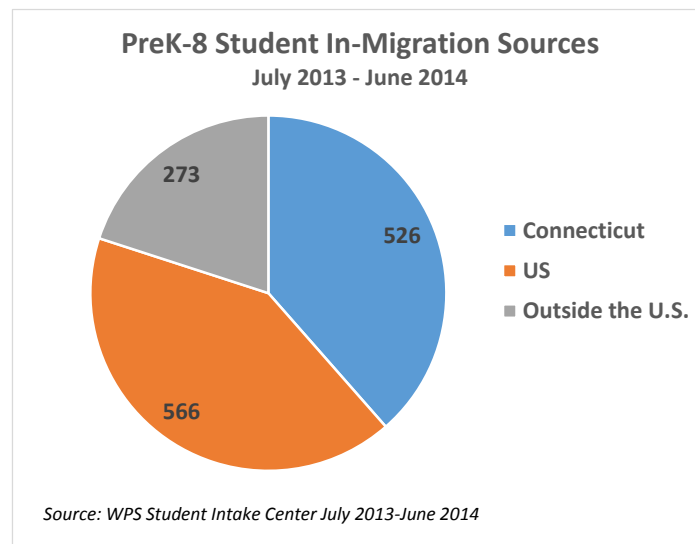
	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15
B. W. Tinker	568	581	521	552	543	533	573	555	550	508	566	563	572	572
Barnard	295	326	285	277	267	276	270	267	250	264				
Brooklyn Elementary			132	172	167	184	229	205	203	189				
Bucks Hill	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

	K-5		K-8		Magnet		6-8
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Student In-Migration Analysis

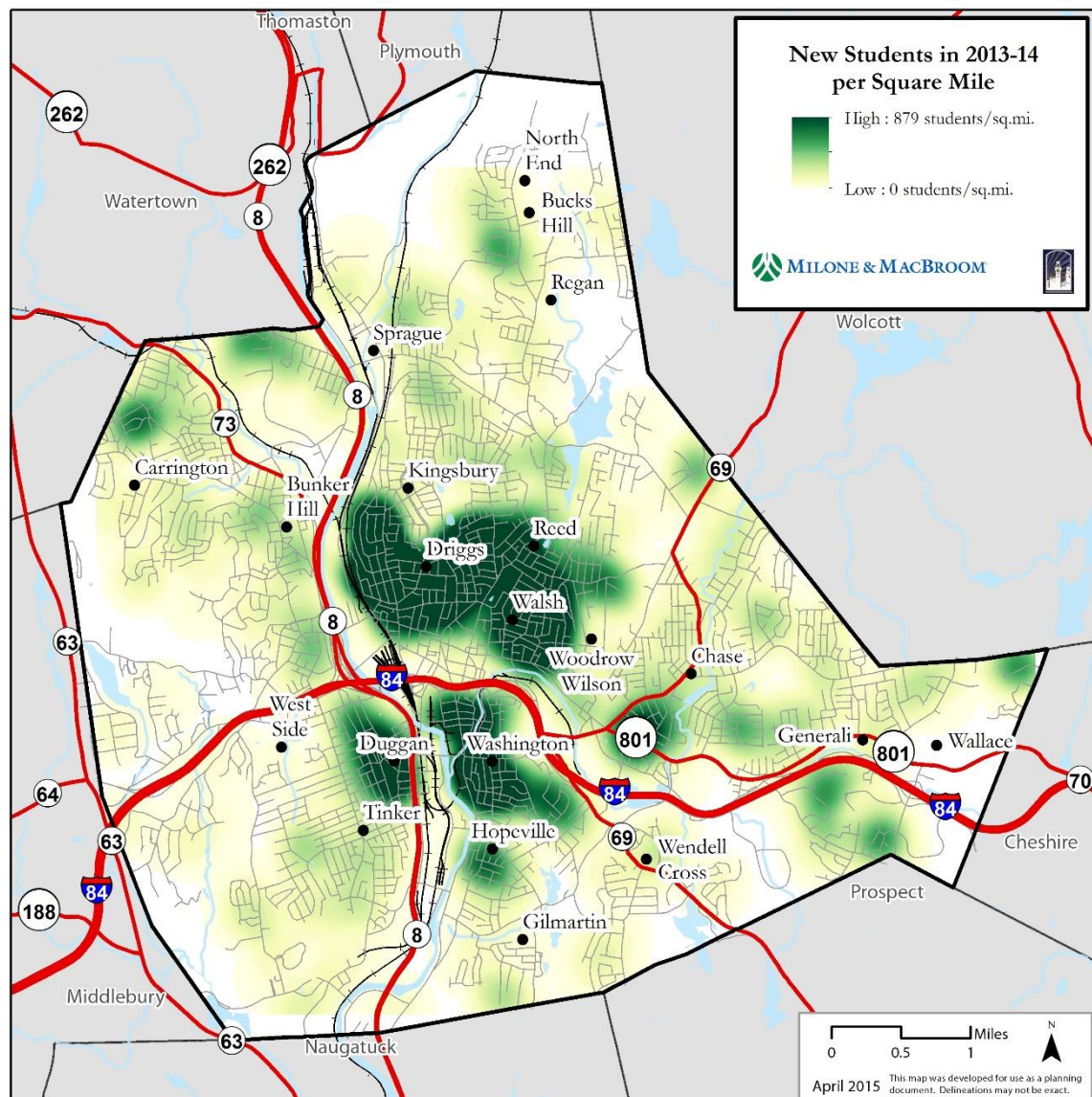
- ◇ Analyzed WPS Intake Center data for July 2013 – June 2014 and July 2014 – May 2015
- ◇ Puerto Rico and Dominican Republic consistently account for about 75% of enrollment from outside of the US
 - ◇ Source of significant ELL/bilingual education needs
- ◇ 65 - 70% of in-migration from outside of Connecticut is from New York, New Jersey, Pennsylvania and Massachusetts
- ◇ In-migration from within Connecticut largely from Naugatuck and large cities in the state: New Haven, Bridgeport, New Britain, Hartford, Meriden, Danbury and Torrington



Student In-Migration Analysis

◇ Highest concentrations of new students in following neighborhoods:

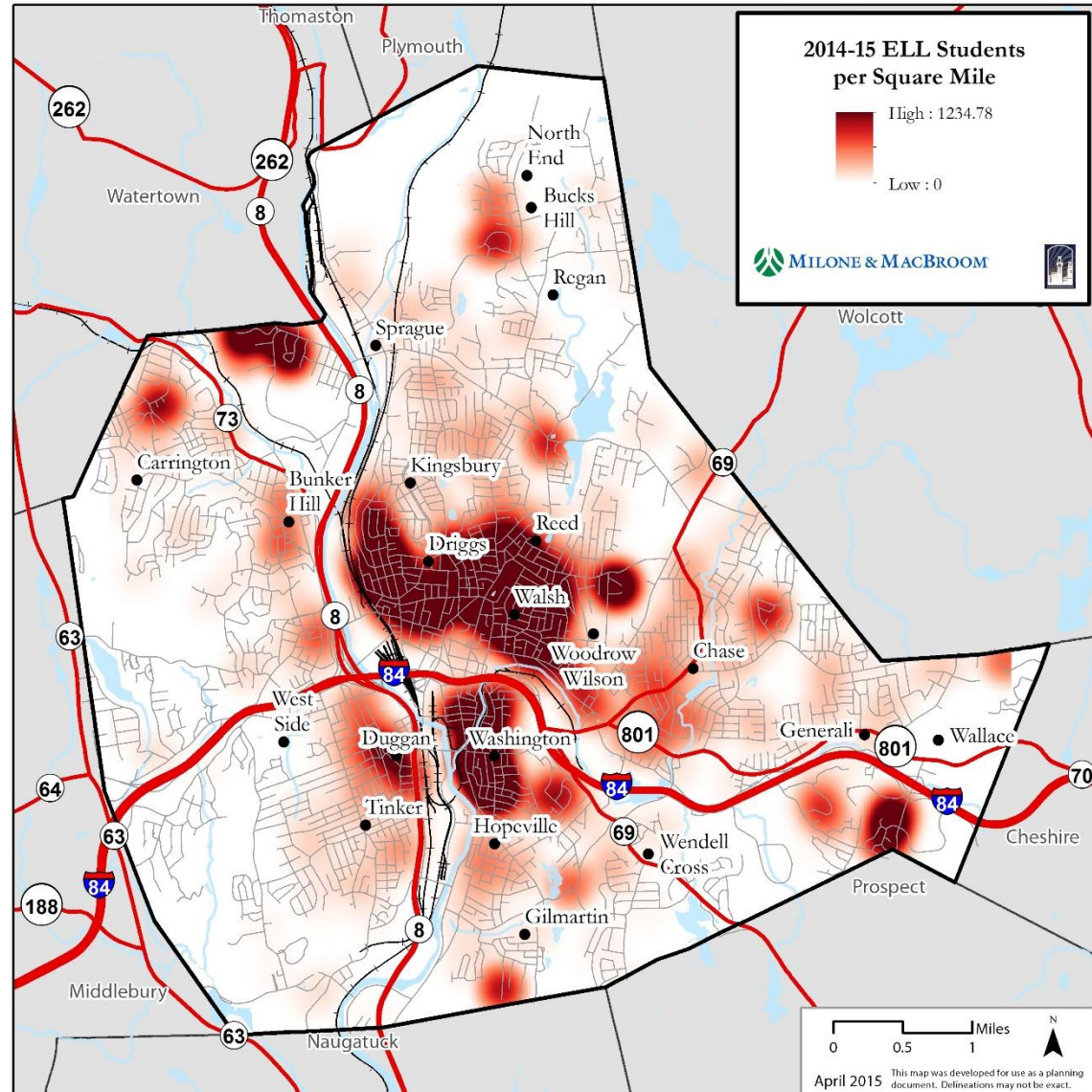
- ◇ Brooklyn
- ◇ Crownbrook
- ◇ East End
- ◇ Hillside
- ◇ Walnut/Orange/Walsh
- ◇ Washington Hill
- ◇ West End
- ◇ Willow Plaza



Districtwide Language Needs

◇ Highest concentrations of existing **ELL** and **bilingual** students in close proximity to following schools:

- ◇ Driggs
- ◇ Hopeville
- ◇ Reed
- ◇ Walsh
- ◇ Washington
- ◇ Wilson





Enrollment Projections Primer

- ◇ The cohort survival methodology relies on observed data from the recent past in order to project the near future
- ◇ Persistency Ratios calculated from historic enrollment data to determine growth or loss in a class as it progresses through school system
- ◇ Persistency Ratios account for the various external factors affecting enrollments: housing characteristics, residential development, economic conditions, student transfers in and out of system, and student mobility
- ◇ Changes in population, housing stock and tenure, and economic conditions help explain persistency ratios
- ◇ Recent instability in economic climate adds variability to enrollments, births, and residential mobility



Persistency Ratios

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	

Source: Calculated by MMI from CSDE CEDaR and Waterbury Public Schools for 2009-10 through 2014-15

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

- ◇ Persistency ratios account for growth or loss in a class as it progresses through school system
- ◇ Ratios factor in the various external factors affecting enrollments: housing characteristics, residential development, economic conditions, student transfers in and out of system, and student mobility
- ◇ Include magnet schools



Enrollment Projections

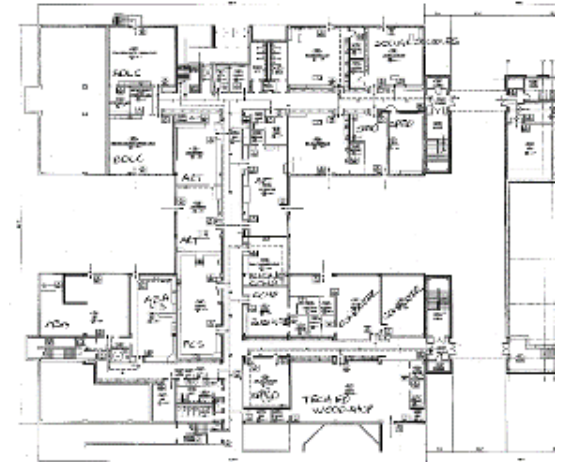
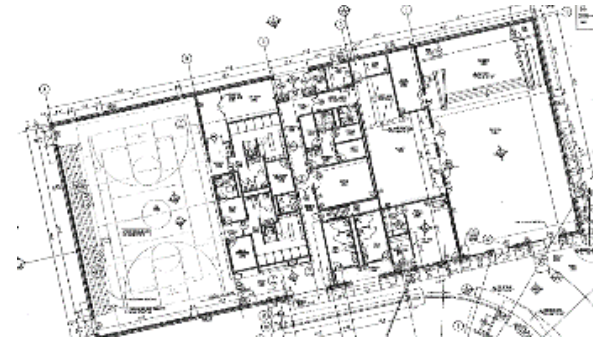
	Birth Year	Births	PK	K	1	2	3	4	5	6	7	8	9	10	11	12	PK-5	6-8	9-12	PK-12
2014-15	2009	1,678	677	1,654	1,563	1,538	1,445	1,434	1,461	1,413	1,337	1,349	1,283	1,284	1,186	1,185	9,772	4,099	4,938	18,809
2015-16	2010	1,543	677	1,517	1,536	1,505	1,518	1,452	1,454	1,451	1,414	1,361	1,251	1,285	1,221	1,156	9,659	4,226	4,913	18,798
2016-17	2011	1,572	677	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	677	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	717	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	757	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	797	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	837	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	877	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	877	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	877	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

- ◇ Prepared low, medium and high growth model projections – high growth model most likely due to continued overall population growth, ongoing student in-migration and statewide trend in down-sizing/ closure of parochial schools
- ◇ Greatest confidence in first 5-yr of projections – based on known data
- ◇ Assumed growth in PreK program beginning in 2018-19 based on statewide initiatives and discussions with Administration



Facility Inventory & Conditions

- ◇ Field survey of PreK-5, 6-8 & PK-8 schools to inventory spaces and collect data for:
 - ◇ Classrooms by grade level
 - ◇ Classrooms used for special programs:
 - ◇ BDLC, Autistic (ABA),
 - ◇ Essential Skills Classroom (ESC)
 - ◇ Bilingual, ESL, etc.
 - ◇ Room areas
 - ◇ Location (i.e. portables, basement, etc.)
 - ◇ Appropriateness of space for use
 - ◇ Presence of specials classrooms (Gym, Art, Music, other)
 - ◇ Accessibility



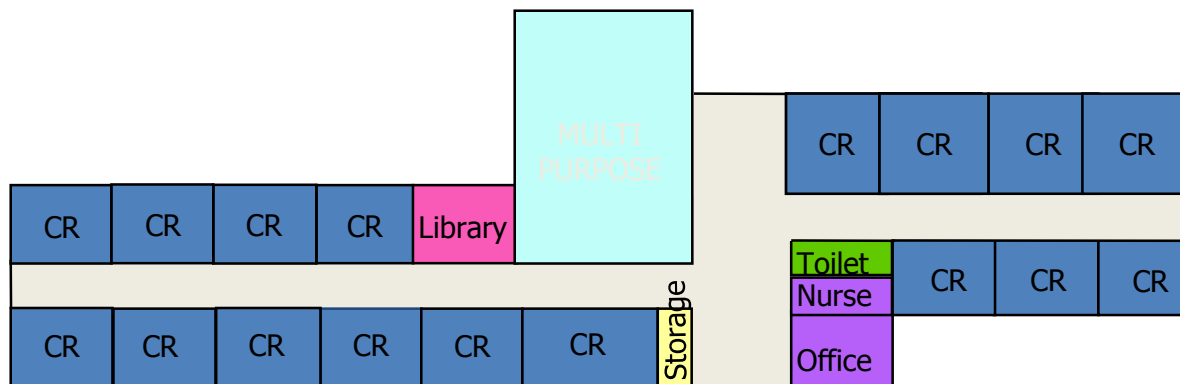


Facility Summary Matrix

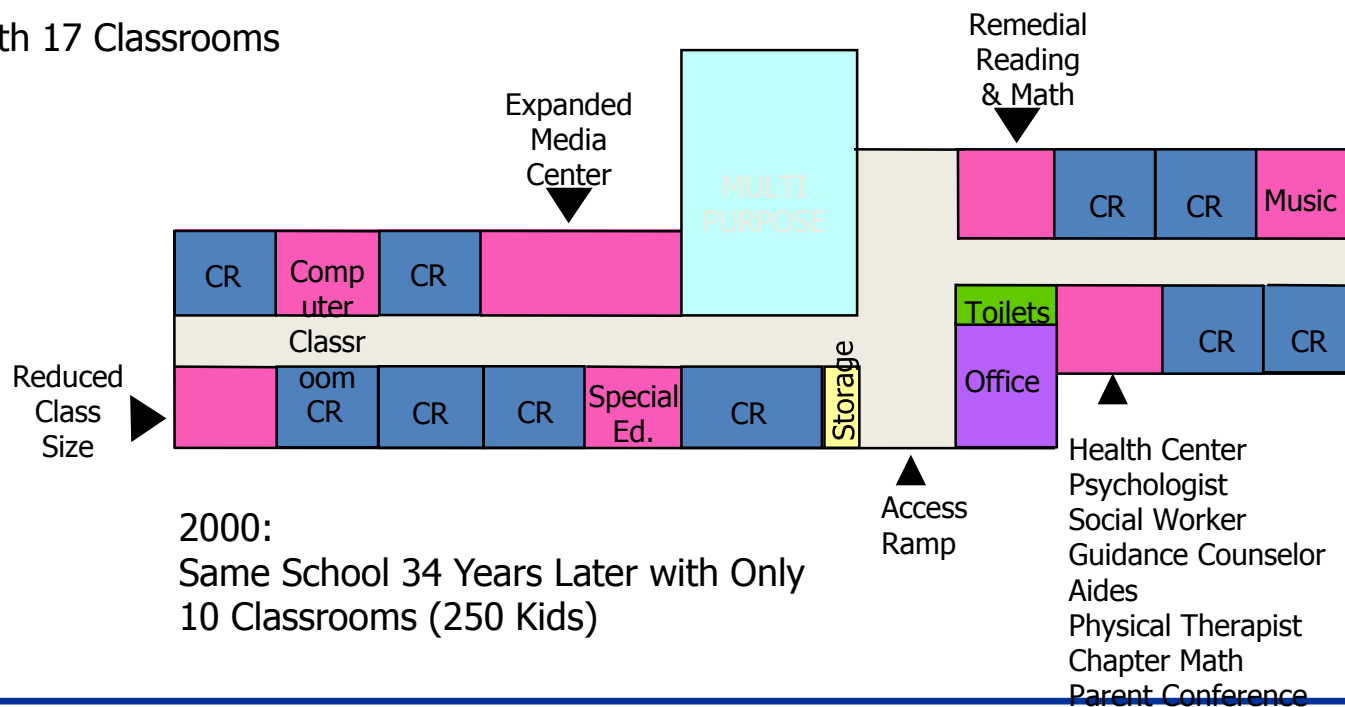
	Grade Level	Year Built	Number of Core Classrooms	Number of Music Classrooms	Number of Art Classrooms	Computer Labs	Library	Gymnasium	Cafeteria	Auditorium	Stage	Site Area (Acres)
Bucks Hill	PK-5	1953	26	1	1	1		Combined	Combined	Combined	Y	10.0
Bunker Hill	PK-5	1905	23	1	1	1	Y	Combined	Y	Combined	Y	1.3
Chase	K-5	1905	34	0	1	2	Y	Combined	Y, Portables	Combined	Y	3.6
Driggs	PK-5	1899	25	0	1	1	Y	Combined	Y	Combined	Y	1.2
Generali	K-5	1923	26	1	0	1	Y	Combined	Y	Combined	Y	2.7
Hopeville	K-5	1917	24	Combined	Combined	1	Y	Combined	Y	Combined	N	3.8
Kingsbury	K-5	1917	22	0	0	1	Y	Combined	Y	Combined	Y	2.0
Regan	K-5	1968	11	0	0	1	Y	Combined	Combined	N	N	8.6
Sprague	PK-5	1913	22	1	1	1	Y	Combined	Combined	Combined	N	1.2
Tinker	K-5	1925	23	0	1	1	Y	Combined	Y	Combined	Y	1.3
Walsh	PK-5	1957	25	1	1	1	Y	Combined	Combined	Combined	Y	2.8
Washington	PK-5	1882	16	1	1	0	Y	Combined	Combined	N	N	1.2
Wendell Cross	PK-5	1953	16	0	0	0	Y	Combined	Combined	Combined	Y	9.5
Wilson	PK-5	1927	20	1	1	1		Combined	Y	Combined	Y	3.9
Carrington	PK-8	2013	21	4	2	2	Y	Y	Combined	Combined	Y	15.0
Duggan	PK-8	2011	20	2	1	1	Y	Y	Combined	Combined	Y	2.6
Gilmartin	PK-8	2010	20	2	1	1	Y	Y	Combined	Combined	Y	5.0
Reed	PK-8	2012	20	1	1	1	Y	Y	Combined	Combined	Y	9.3
North End Middle	6-8	1978	46	Common	Common	1	Y	Common	Common	Common	Common	84.0
Wallace Middle	6-8	1973	47	Common	Common	1	Y	Common	Common	Common	Common	77.5
West Side Middle	6-8	1976	50	2	3	4		Y	Y	Aux Gym	Y	9.1



Where Have All the Classrooms Gone?



1966:
New School with 17 Classrooms
(500 Kids)

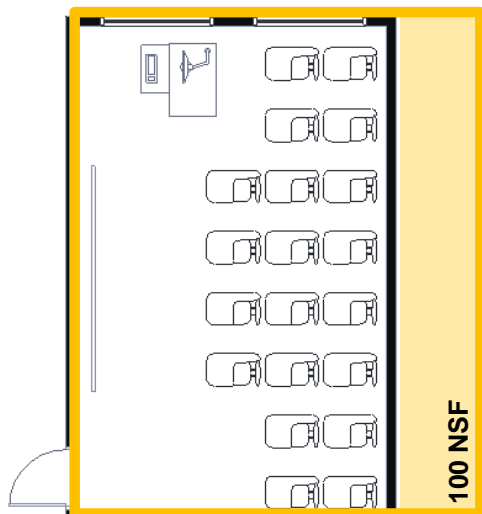


2000:
Same School 34 Years Later with Only
10 Classrooms (250 Kids)



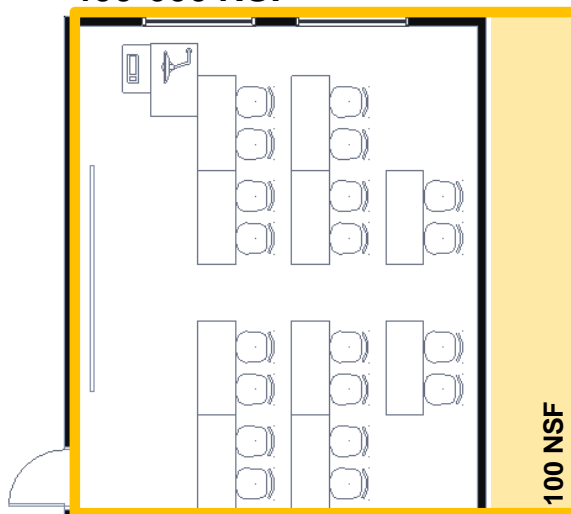
Evolution of Classroom Space: 20 Seat Classroom

300-360 NSF



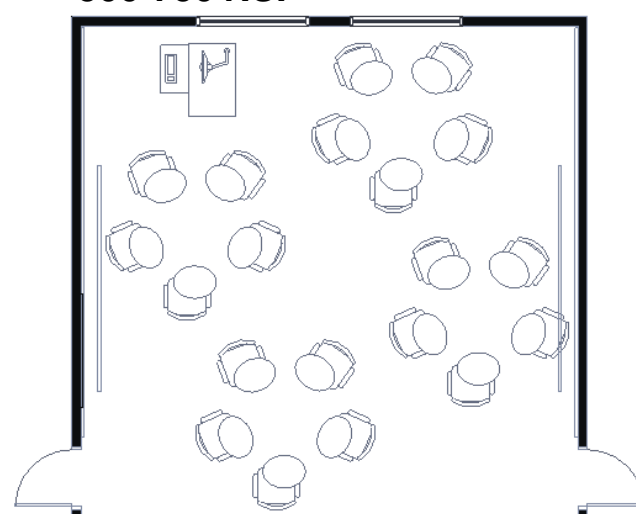
15-18 NSF/seat

400-600 NSF



20-30 NSF/seat

500-750 NSF



25-35 NSF/seat

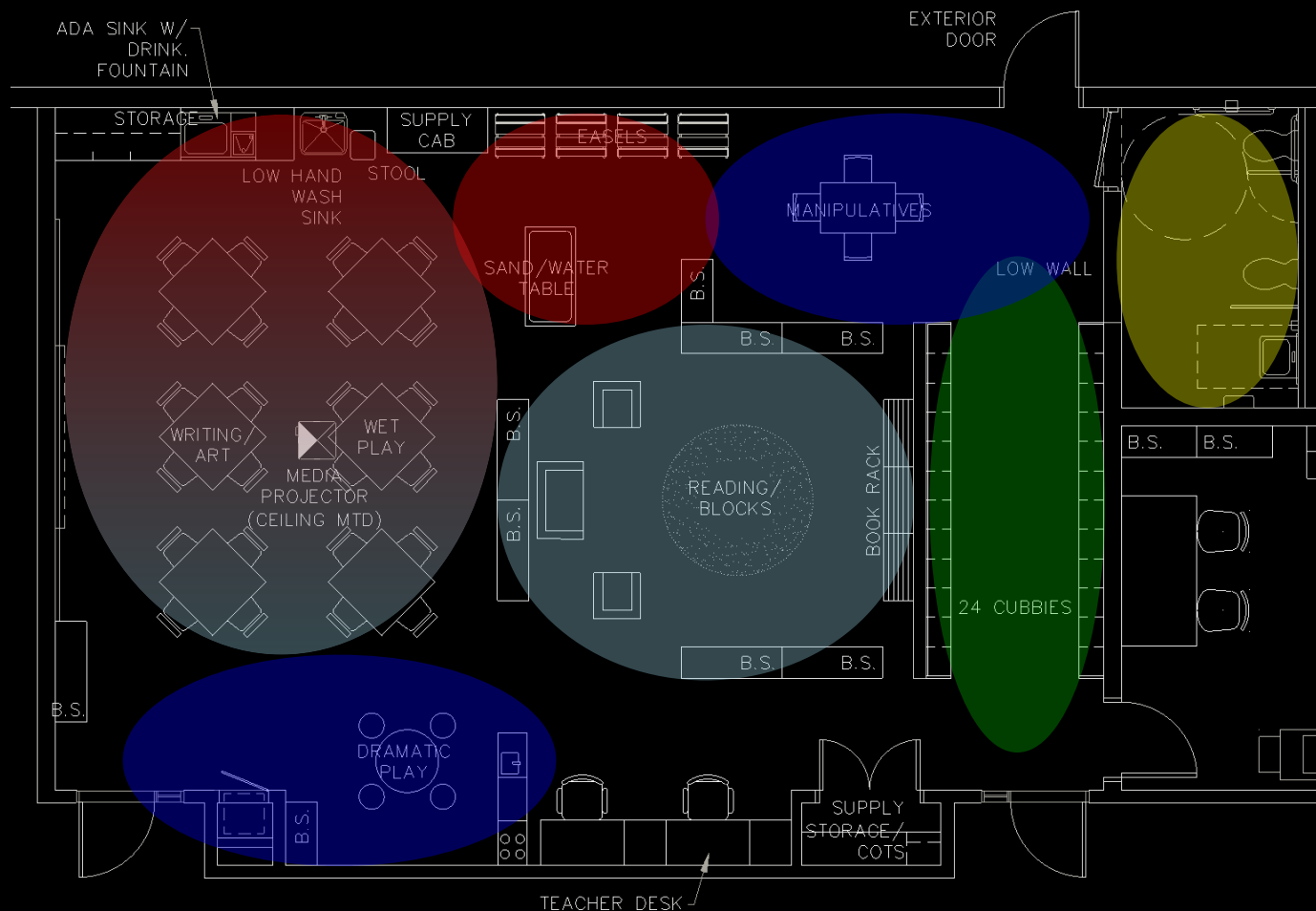
Instructor-Directed Learning

Self-Directed Learning





PreK and K Classrooms

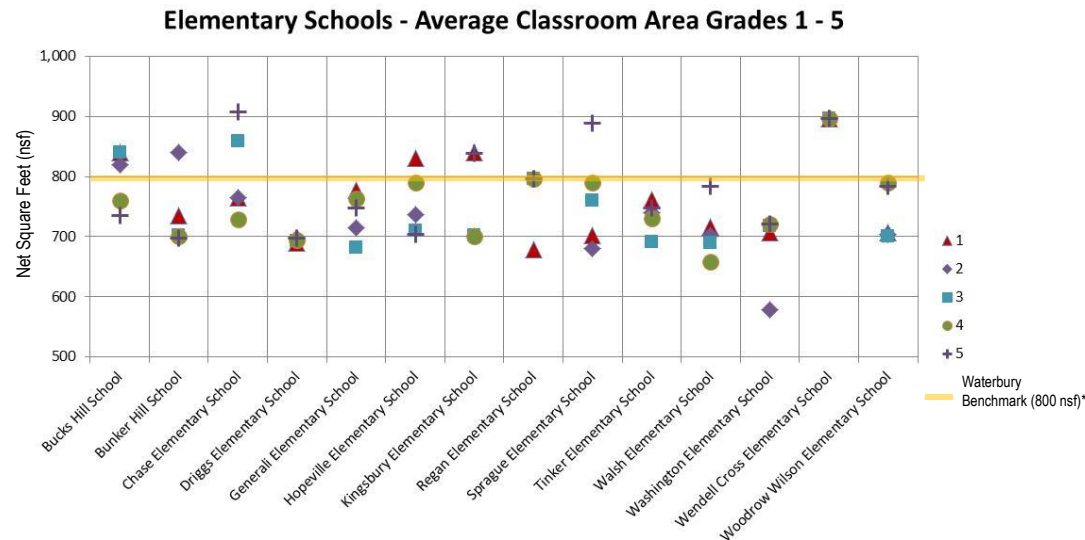


- Cubbie Area
- Instructional Area
- Active Play Area
- Eating/Wet Activity Area
- Changing/Toilet Area



Facilities Benchmarking

- ◇ Benchmarked individual schools against district model PreK-8 building
- ◇ Due to the various ages of buildings and evolution of classroom needs, majority of existing classrooms are smaller than the benchmark PreK-8 model
- ◇ Evidence of co-opting of spaces due to enrollment pressures



* Waterbury PS PreK-8 Model Program



Facilities Utilization

	PK	K	1	2	3	4	5	6	7	8	TOTAL ENROLL MENT (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	464	110%
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	407	114%
Gilmartin	35	60	49	47	46	55	55	56	53	50	506	464	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	887	115%
Wallace Middle	0	0	0	0	0	0	0	412	382	365	1,159	959	121%
West Side Middle	0	0	0	0	0	0	0	345	324	352	1,021	1,004	102%
TOTAL:	292	1483	1390	1357	1267	1247	1278	1293	1208	1188	12,003	11,030	109%

* BDLC and ES classrooms assume max enrollment of 12 despite physical space capacity based on current use.

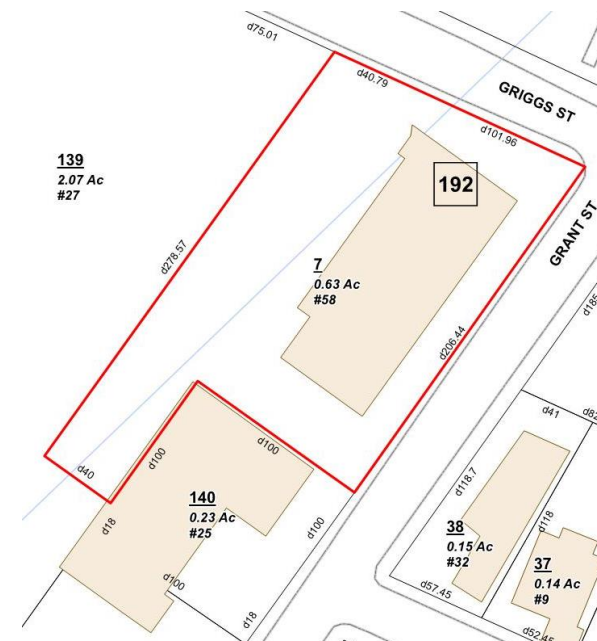
◇ Calculated school capacity based on recommended net square feet per seat factors



State Street School (St. Lucy's) PAL

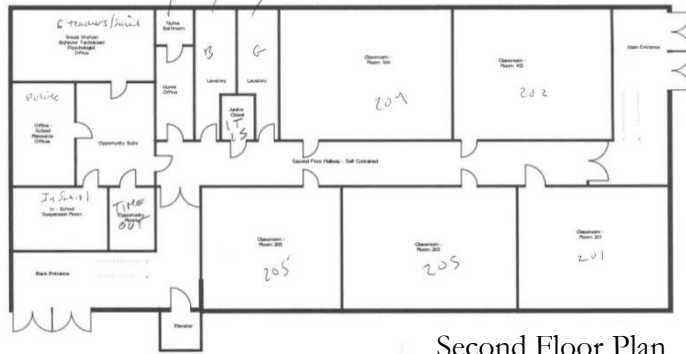


- 0.63 Acres
- Very tight site
- Adjacent to Reed ES
- Adjacent community athletic facilities (Park?)

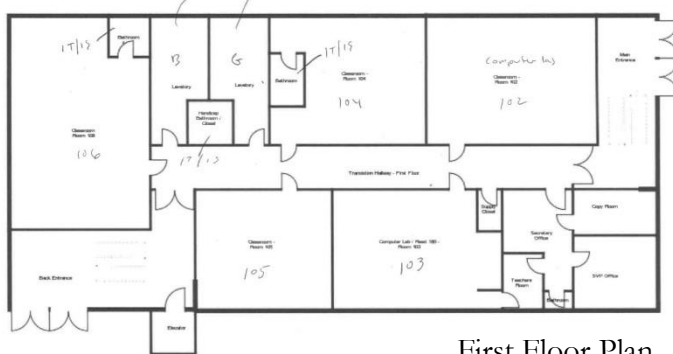




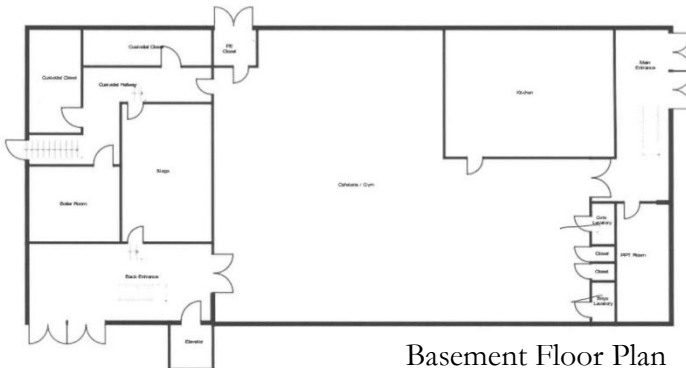
State Street School (St. Lucy's) PAL



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





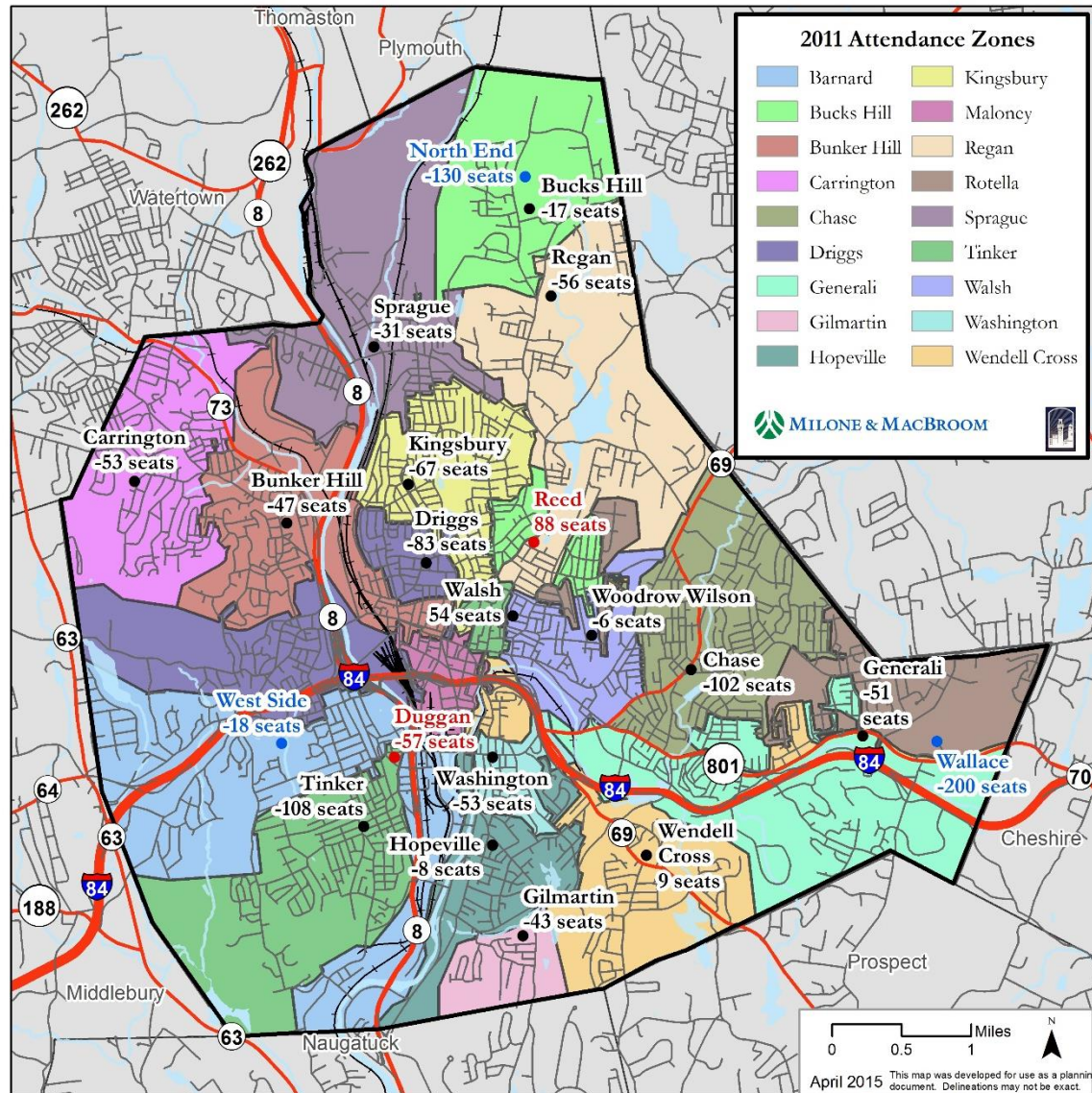
Parochial Facilities

- ◇ 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



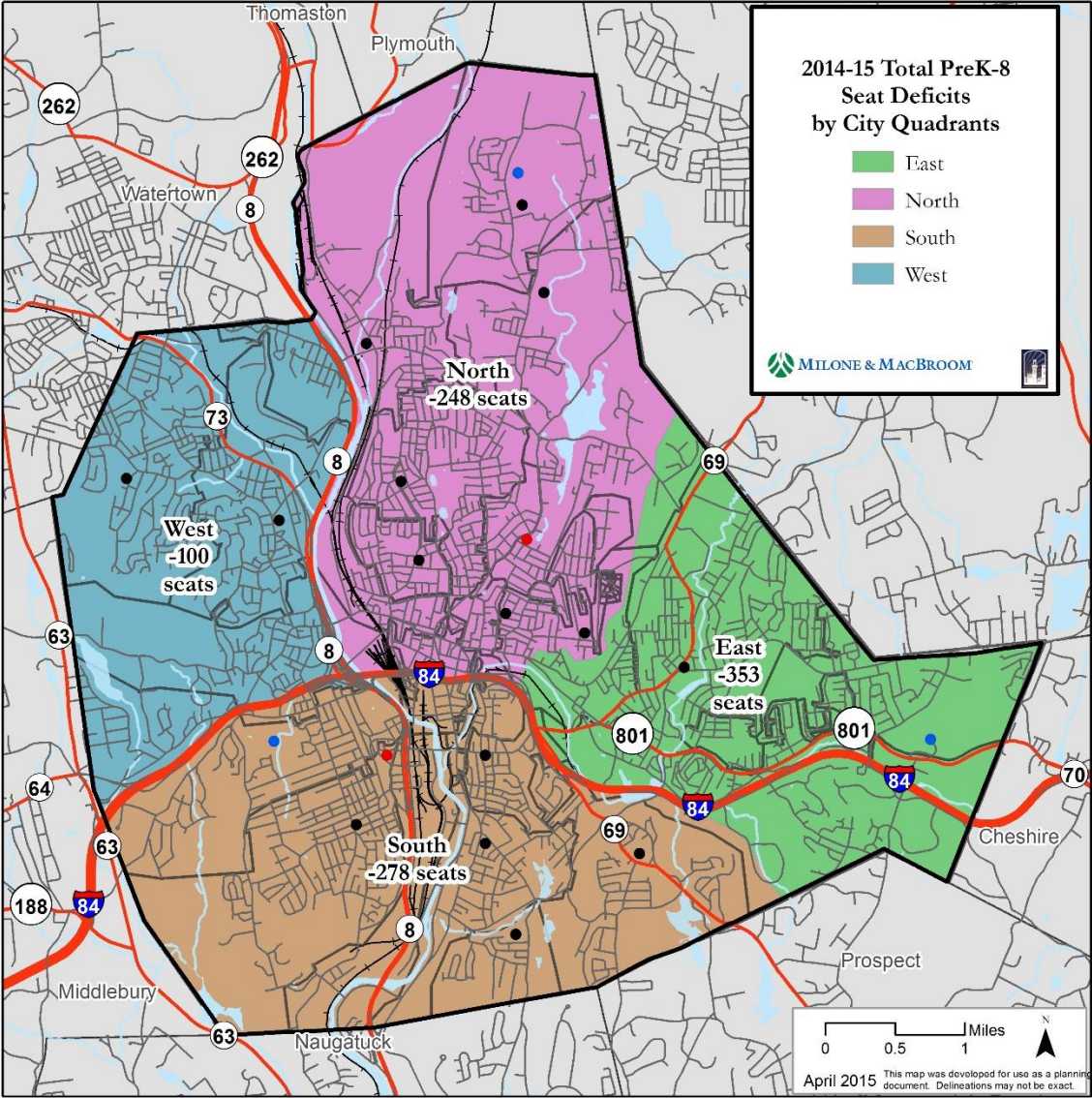
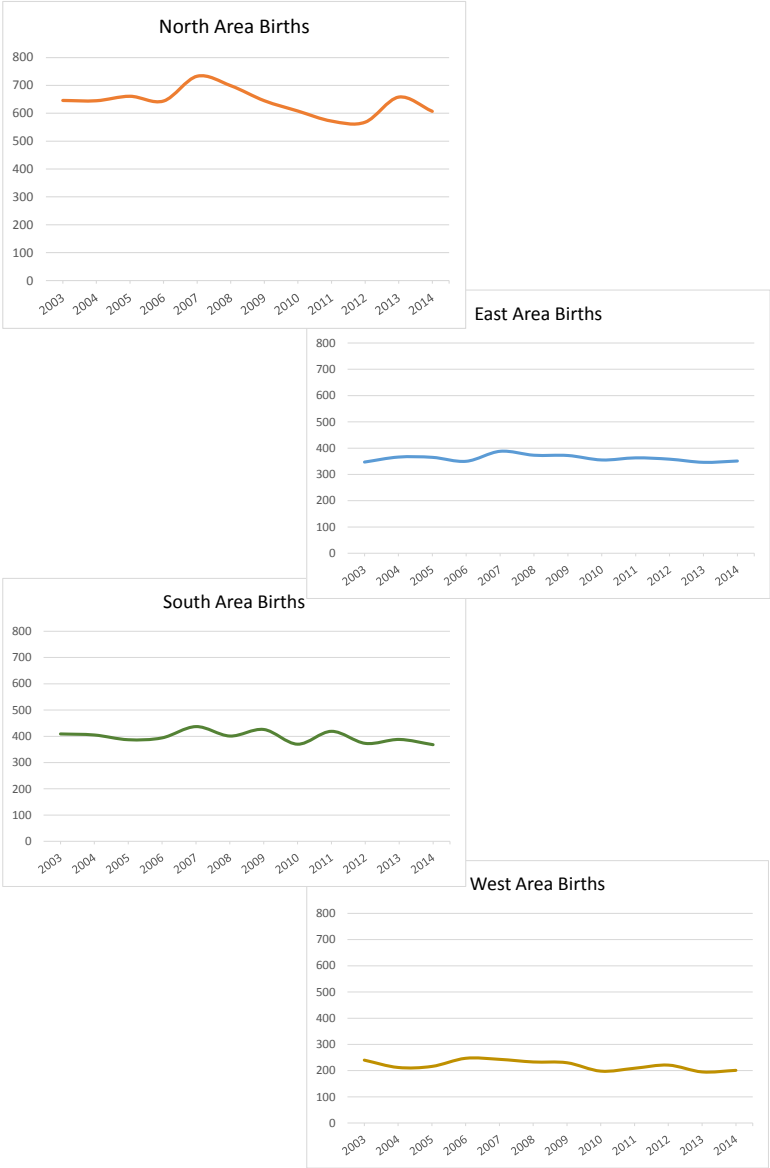
Current Seat Deficit by School

- ◇ Deficits are widespread due to ad hoc placement of students with many students placed outside of neighborhood
- ◇ Nearly all schools require a measure of relief
- ◇ Deficits are from meeting **100% utilization**





2014-15 PreK-8 Seat Deficit and Births by Area



April 2015 This map was developed for use as a planning document. Delineations may not be exact.



Projected Utilization

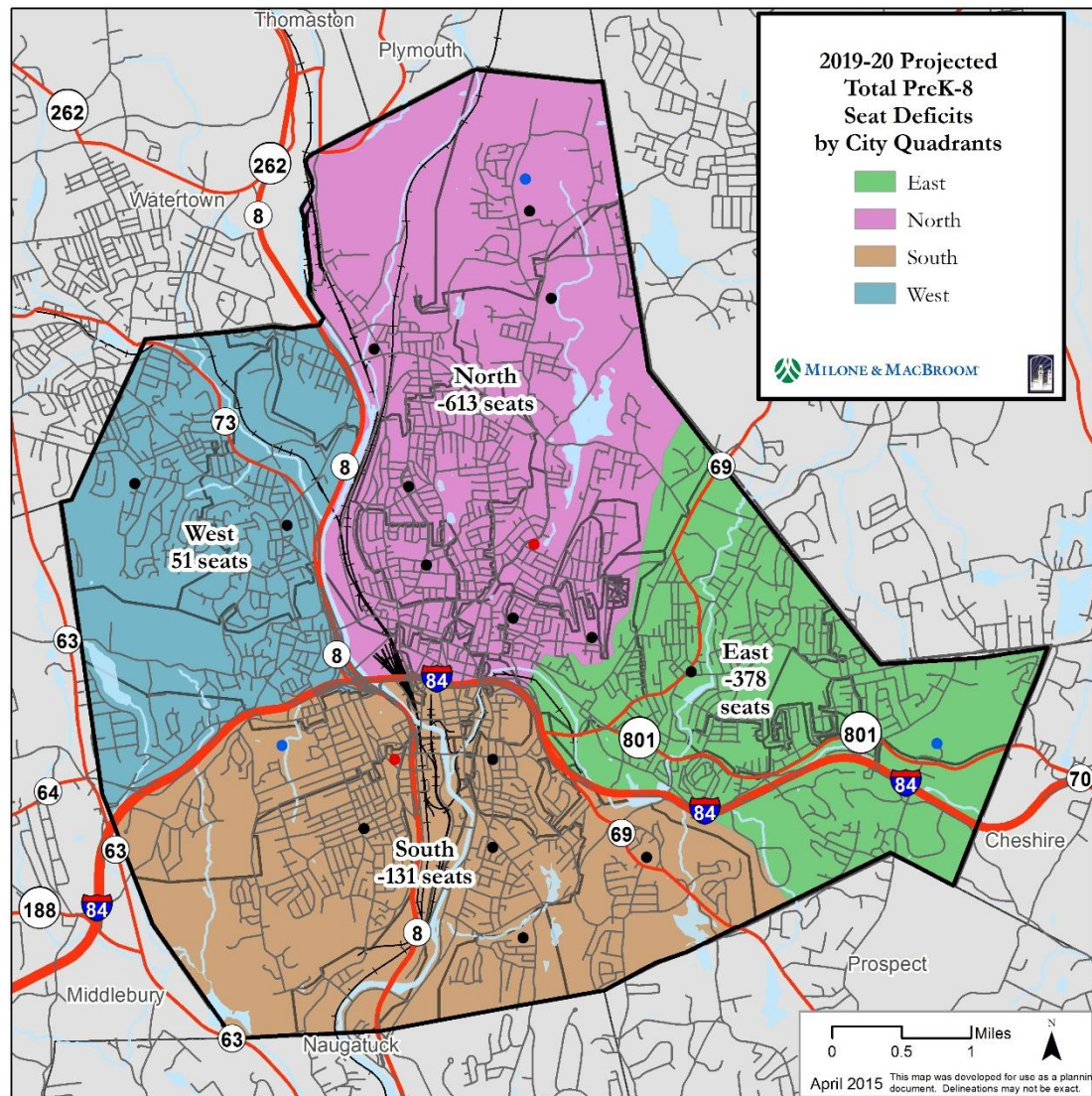
	14-15		15-16		16-17		17-18		18-19		19-20		20-21		21-22		22-23	
	Util	Seat Diff	Util	Seat Diff	Util	Seat Diff	Util	Seat Diff	Util	Seat Diff	Util	Seat Diff	Util	Seat Diff	Util	Seat Diff	Util	Seat Diff
Bucks Hill	103%	-17	113%	-69	123%	-123	129%	-158	133%	-177	132%	-172	131%	-171	132%	-175	132%	-175
Bunker Hill	110%	-47	109%	-44	109%	-40	106%	-28	105%	-24	109%	-40	107%	-32	108%	-35	108%	-35
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%	-565	108%	-504	108%	-506	107%	-474	107%	-430	105%	-350	105%	-326	106%	-401	107%	-451
Carrington	112%	-53	111%	-46	100%	1	91%	38	86%	63	79%	91	77%	101	72%	120	72%	122
Duggan	114%	-57	113%	-53	112%	-48	112%	-47	110%	-41	107%	-30	105%	-20	100%	-1	98%	9
Gilmartin	109%	-43	110%	-48	110%	-47	111%	-49	111%	-52	111%	-50	112%	-53	111%	-49	109%	-40
Reed	83%	88	91%	47	97%	17	100%	1	104%	-22	104%	-21	104%	-20	102%	-11	103%	-13
SUB-TOTAL	104%	-65	105%	-99	104%	-77	103%	-57	103%	-52	101%	-11	100%	8	97%	59	96%	77
North End Middle	115%	-130	113%	-116	115%	-133	122%	-196	131%	-271	140%	-355	143%	-378	142%	-368	139%	-345
Wallace Middle	121%	-200	128%	-273	133%	-318	134%	-325	130%	-292	129%	-283	130%	-291	128%	-265	125%	-240
West Side Middle	102%	-18	103%	-32	105%	-51	103%	-33	104%	-42	104%	-39	103%	-32	96%	42	92%	83
SUB-TOTAL	112%	-347	115%	-421	118%	-502	119%	-554	121%	-605	124%	-676	125%	-702	121%	-591	118%	-503
TOTAL:	109%	-977	109%	-1,024	110%	-1,084	110%	-1,086	110%	-1,088	109%	-1,037	109%	-1,020	108%	-932	108%	-877

◇ Walsh school utilization low due to status as a Commissioner's Network/ Turnaround school



Projected 2019-20 PreK-8 Seat Deficits by Area

- ◇ Deficits continue and burden begins shifting towards 6th-8th grades as bubbles matriculate through
- ◇ Deficits persist and intensify in East End and North End





Facilities Utilization

- ◇ Overall seat deficit for all PreK-5, PreK-8 and 6-8 Schools average 1,014 students over the next 8-years
- ◇ PreK-5 School seat deficit averages 445 students over next 8-years
- ◇ PreK-8 School deficit average self corrects to a modest surplus of 77 seats in 2022-23
- ◇ 6th-8th School seat deficit averages 545 students over the next 8-years
- ◇ System averages 109% utilization over the planning horizon – over crowding will not self-correct



Is Redistricting Alone a Solution?

- ◇ Without adding capacity to overall PK-8 system, redistricting cannot alleviate current and anticipated overcrowding
- ◇ Need for approximately 1,000 additional seats in each of the next seven years just to deliver current programming and phase in an expanded PreK program beginning in 2018-19
- ◇ Redistricting alone would only shuffle overcrowding concerns among schools



Objectives

- ◇ Provide sufficient capacity in the PreK-8 system to address districtwide space shortage
- ◇ Alleviate overcrowding at PreK-5, Prek-8 and 6-8 schools with greatest need for the foreseeable future
- ◇ Attain Waterbury PreK-8 neighborhood school model
- ◇ Provide appropriate space at facilities strategically located for growing PreK, Bilingual and ELL, SPED, BDLC needs



Challenges

- ◇ Mitigating overcrowding while “bubbles” are moving through the system
- ◇ Lack of elasticity and swing space within existing facilities
- ◇ Finding appropriate swing space for middle school students particularly difficult due to facility requirements
- ◇ Growing districtwide special education and ESL space needs require space
- ◇ Many existing PreK-5 school sites in areas of greatest density and need are undersized for expansion opportunities
- ◇ Delivering programming to neighborhoods and schools of greatest need with a growing seat deficit
- ◇ Fulfilling PreK-8 deployment



Options Summary

- ◇ Developed & tested several scenarios including a new PreK-8 (550) school in the East End.
- ◇ Presenting three scenarios for consideration that best meet objectives.
- ◇ Phase I alternatives strive to accommodate current enrollment bubble over the next eight years while continuing to move towards neighborhood PreK-8 system
- ◇ Completion, or near completion, of Phase I provides opportunity to re-assess needs and priorities for next phases
- ◇ Subsequent phases might continue neighborhood PK-8 school expansion while consolidating facilities that do not fit the model or have outlived their useful life



Initial Option – PreK-8 (550) “Test-Fit”

- ◇ Tested options that started with building one new 550 student PreK-8 school, following the Waterbury neighborhood school model

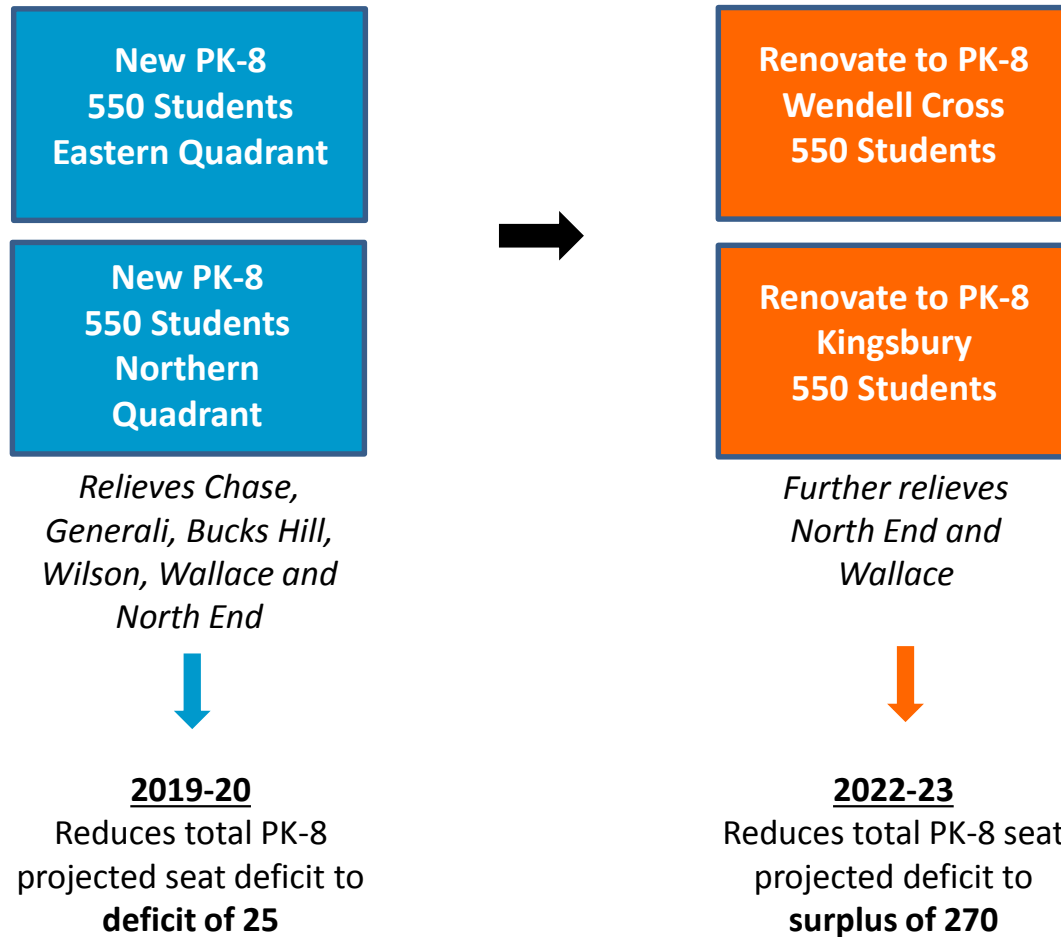
	Projected Seat Deficit 2019-20	<i>With one new 550 PreK-8 school</i>		Projected Seat Deficit 2019-20
PK-5	-350		PK-5	12
PK-8	-11		PK-8	-11
6-8	-676		6-8	-508
	<hr/> -1,037			<hr/> -507

- ◇ By 2019-20, only 850 6th-8th graders would be in PK-8 schools, with roughly 3,300 non-magnet 6th-8th graders remaining (100 more than currently enrolled in the three middle schools)
- ◇ Additional PreK-8 renovations of existing buildings - while creating 6-8 seats - result in a loss of PreK-5 seats
- ◇ Not enough initial space gain: District would continue to shift overcrowding between middle and elementary levels



Option A

Option A, Phase I





Option A1

Option A1, Phase I

Concurrent
Construction/
Renovation Projects

New PK-8
550 Students
Eastern Quadrant

New PK-8
550 Students
Northern
Quadrant

*Relieves Chase,
Generali, Bucks Hill,
Wilson, Wallace and
North End*



Renovate to PK-8
Wendell Cross
550 Students

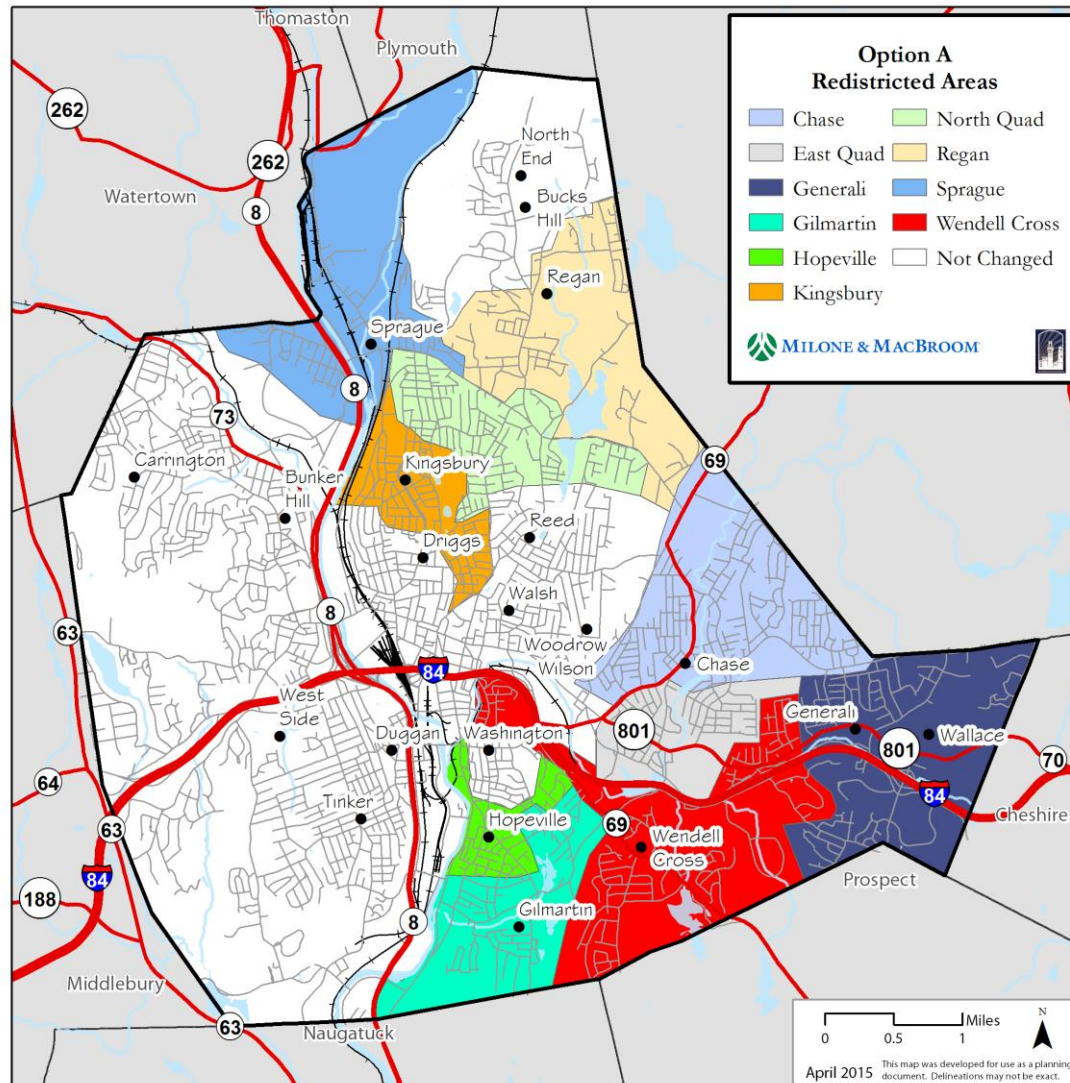
Renovate to PK-8
Kingsbury
550 Students

*Further relieves
North End and
Wallace*



2019-20
Reduces total PK-8
projected seat deficit to
surplus of 110

Option A – Phase I Conceptual Boundaries





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

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%	651	63	91%	-165
Generali	552	603	(51)	109%	544	8	99%	-59
Gilmartin ^{1 3}	464	506	(42)	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	512	(112)	128%	331	69	83%	-181
Sprague	430	461	(31)	107%	389	41	90%	-72
Regan	223	279	(56)	125%	207	16	93%	-72
North End MS	887	1,016	(129)	115%	851	36	96%	-165
Wallace MS ³	959	1,159	(200)	121%	994	(35)	104%	-165
North Quad (New) ⁴	550	-	-	-	545	5	99%	545
East Quad (New) ⁴	550	-	-	-	549	1	100%	549

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

2. Wendell Cross and Kingsbury will be converted to 550 PK-8 schools. K-5 enrollment cannot exceed 400

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 each create 55 Pre-K seats. Assumed that existing Pre-K deployments remain the same at all other schools



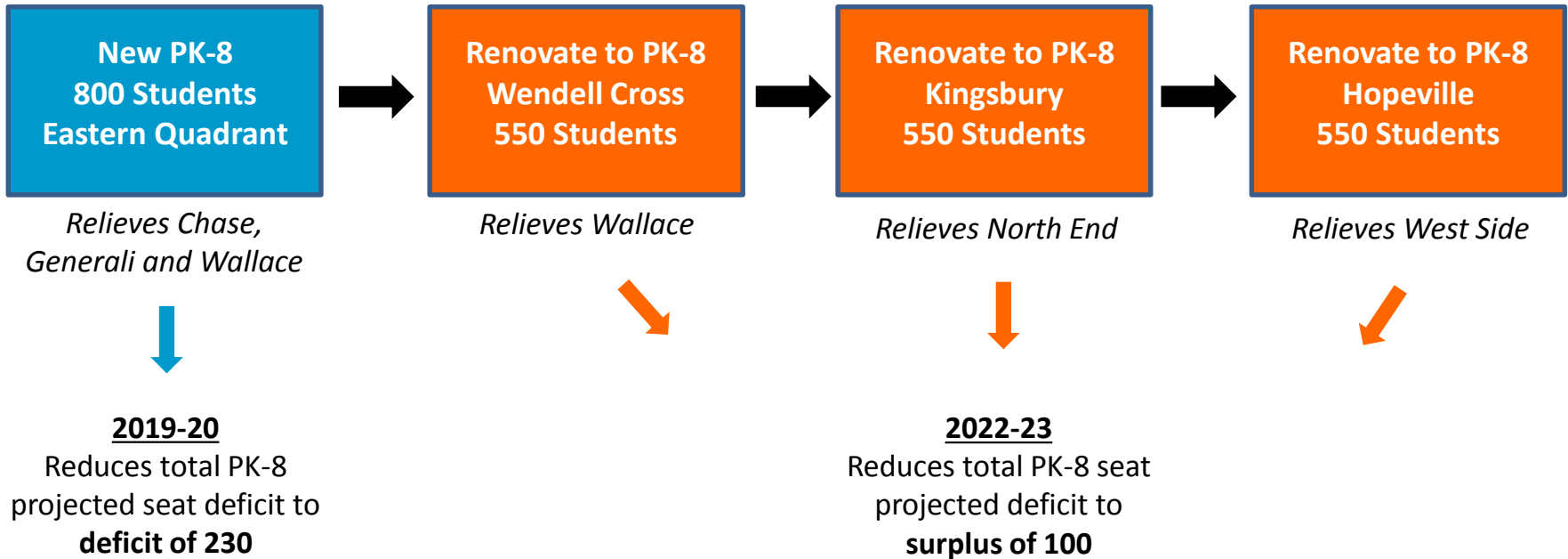
Option A - Considerations

- ◇ Aims to mitigate overcrowding in East End and North End of City as quickly as possible
- ◇ Greatest initial investment required with two new schools
- ◇ Option A may not gain seats fast enough to sufficiently accommodate middle school enrollment bubble, Option A1 would
- ◇ Additional swing space may be required to facilitate renovation projects
- ◇ Opportunity to realign boundaries to develop permanent coterminous neighborhood schools in East End
- ◇ Challenge to find two new school sites, as well as fund and manage concurrent construction projects
- ◇ Moderate surplus of seats at end of projection horizon could facilitate additional phases by serving as swing space

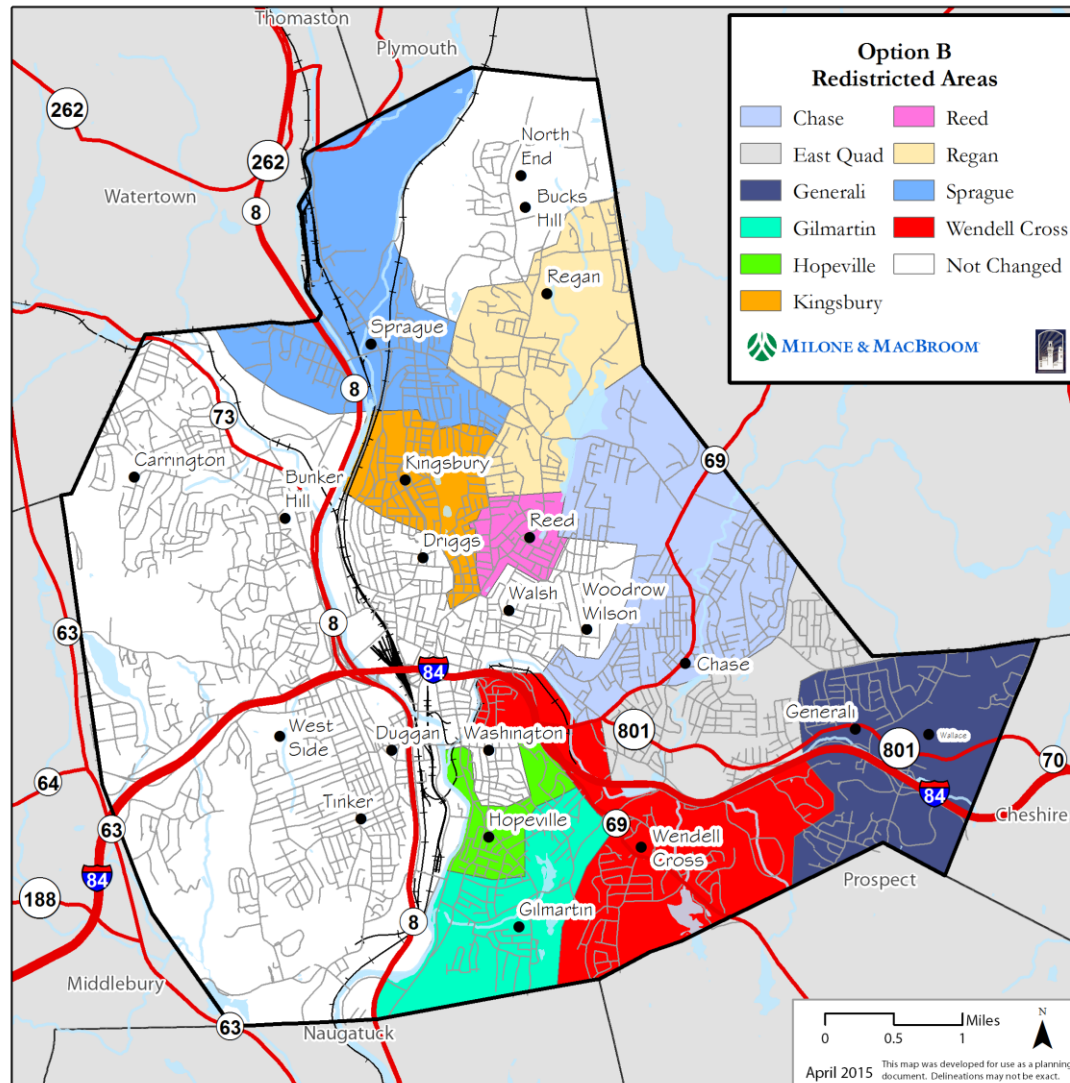


Option B

Option B, Phase I



Option B – Phase I Conceptual Boundaries





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

School	Functional Capacity	Existing Conditions			Option B			Net Change in Students
		Existing Enrollment	Surplus/ Deficit	% Utilized	Proposed Enrollment	Surplus/ Deficit	% Utilized	
Chase	714	816	(102)	114%	673	41	94%	-143
Generali	552	603	(51)	109%	524	28	95%	-79
Gilmartin ^{1 5}	464	506	(42)	109%	447	17	96%	-59
Hopeville ²	400	475	(75)	119%	406	(6)	102%	-69
Wendell Cross ²	400	366	34	92%	320	80	80%	-46
Kingsbury ²	400	512	(112)	128%	395	5	99%	-117
Reed ^{1 3 5}	517	460	57	89%	514	3	99%	54
Regan	223	279	(56)	125%	267	(44)	120%	-12
Sprague	430	461	(31)	107%	459	(29)	107%	-2
Wallace	959	1,159	(200)	121%	919	40	96%	-240
East End (New) ⁴	800	-	-	-	827	(27)	103%	827

1. Gilmartin and Reed Schools are PK-8, total enrollment includes all grades
2. Hopeville, Wendell Cross, and Kingsbury will be converted to 550 PK-8 schools. K-5 enrollment cannot exceed 400
3. Assumed that average 8th grade class size at Reed would increase to 60 students
4. The new East End School would create 80 pre-K seats. Assumed that existing Pre-K deployments remain at all other schools
5. Reed and Gilmartin schools added 34 6-8th grade students from redistricted areas (22 to Reed, 12 to Gilmartin)



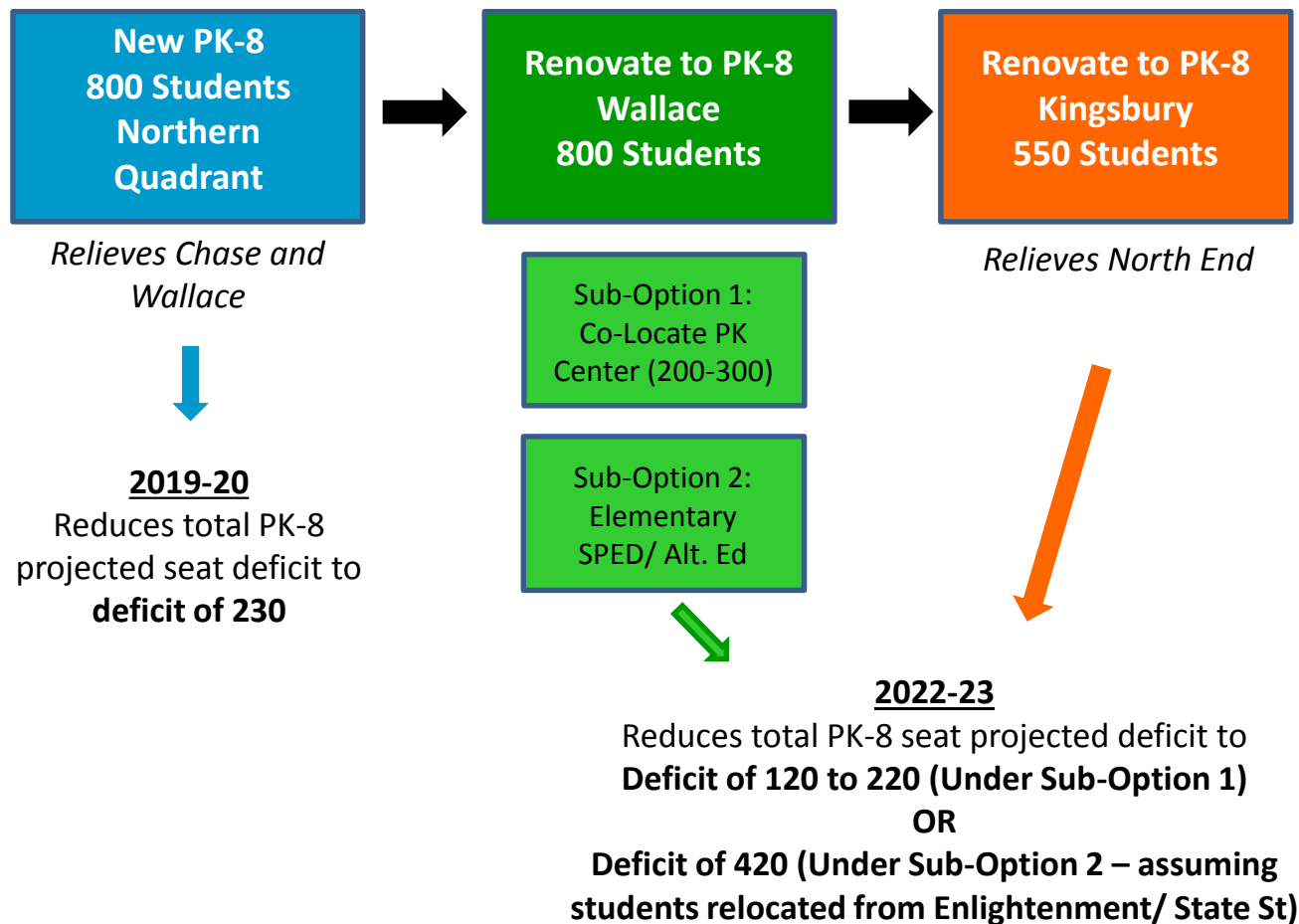
Option B - Considerations

- ◇ Larger PreK-8 school at 3 classrooms per grade economizes on construction investment, while providing infusion of space in more timely manner
- ◇ Renovating Wendell Cross gains more seats than other school renovations, therefore, early in construction sequencing
- ◇ Additional swing space may be needed to facilitate renovation projects
- ◇ Challenge to find new school site
- ◇ Modest surplus of seats at end of Phase I could provide swing space to facilitate additional phases

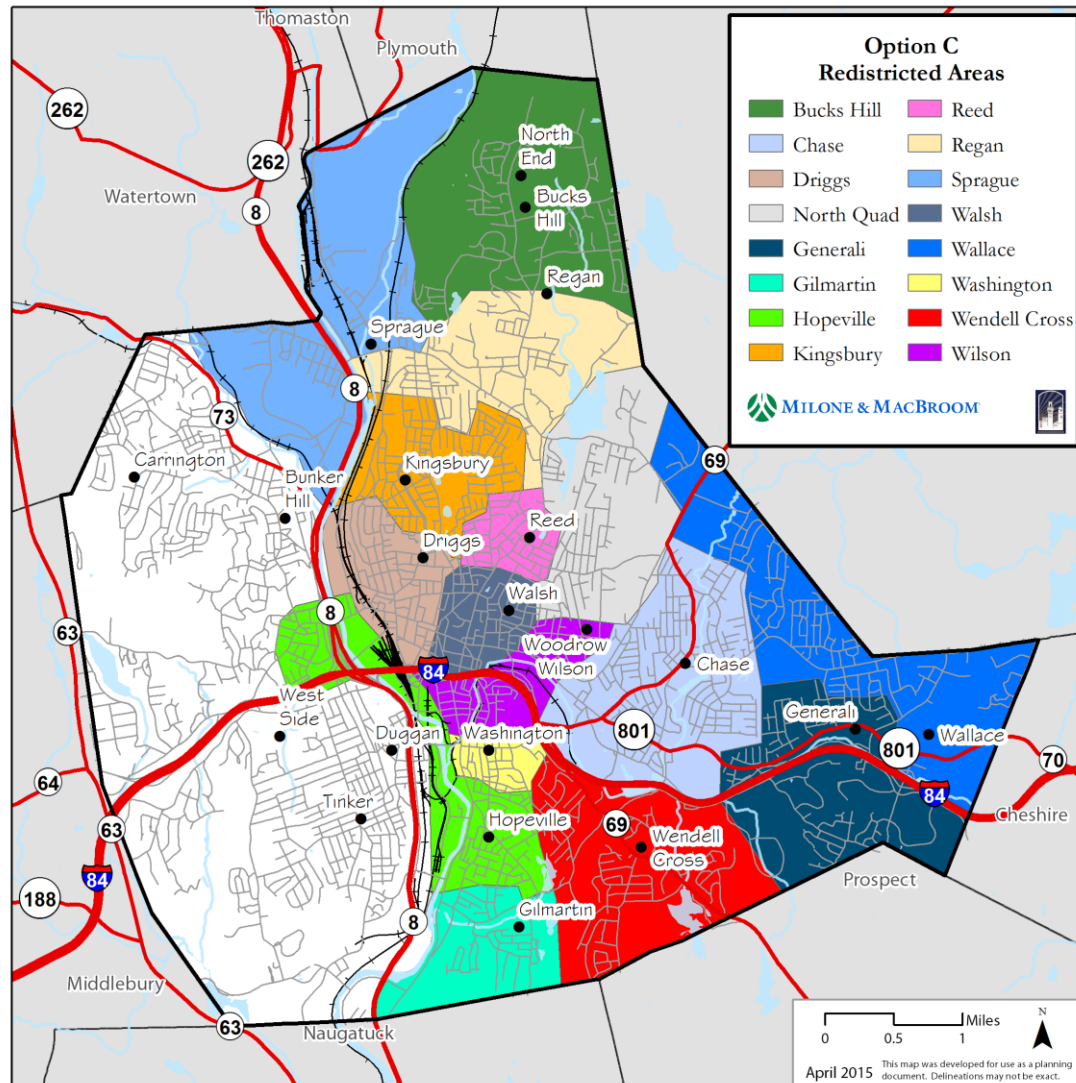


Option C

Option C, Phase I



Option C – Phase I Conceptual Boundaries





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

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%	527	25	95%	-76
Gilmartin ^{1 3 5}	464	506	(42)	109%	286	178	62%	-220
Kingsbury ²	400	512	(112)	128%	391	9	98%	-121
Hopeville	426	467	(41)	110%	312	114	73%	-155
Regan	223	279	(56)	125%	209	14	94%	-70
Reed ^{1 3 5 6}	517	460	57	89%	504	13	97%	44
Sprague	430	461	(31)	107%	368	62	86%	-93
Wallace ^{1 3 4}	800	1,159	-	-	798	2	100%	-361
Walsh	509	455	-	-	449	60	88%	-6
Washington	287	340	(53)	118%	275	12	96%	-65
Wendell Cross	375	366	-	-	350	25	93%	-16
Wilson	440	445	(5)	101%	450	(10)	102%	5
North Quad (New) ⁴	800	0	-	-	807	(7)	101%	807

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

2. Kingsbury will be converted to 550 PK-8 schools. K-5 enrollment cannot exceed 400

3. Results in a deficit of 736 seats for students in Grades 6-8

4. North Quad and Wallace would each create 80 Pre-K seats. Assumed that existing Pre-K deployments remain the same at all other schools

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



Option C - Considerations

- ◇ Aims to address shortages in Eastern and Northern quadrants first
- ◇ Larger PreK-8 school at 3 classrooms per grade economizes on construction, while providing necessary infusion of space in more timely manner
- ◇ Second 800 PreK-8 at 3 classrooms per grade at Wallace provides opportunity to alleviate other programming space concerns within Phase I
- ◇ Wallace will require phased renovation and additional swing space
- ◇ Recent additions at Wallace would remain and function as designed in renovated structure
- ◇ Challenge to find appropriate site for 800 student new school
- ◇ Most conservative addition of space- seat deficit remains at end of Phase I
- ◇ Seat deficit will need to be addressed early in Phase II to address areas of overcrowding and provide swing space.



Discussion & Q & A



Appendix – Projections by School

	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
PK-5s									
Bucks Hill	561	613	667	702	722	716	715	720	720
Bunker Hill	511	508	505	493	488	504	496	499	500
Chase	816	826	824	832	823	809	797	801	802
Driggs	528	504	494	473	481	471	469	491	492
Generali	603	576	577	570	565	551	548	551	552
Hopeville	475	464	474	459	455	451	445	448	448
Kingsbury	512	505	498	489	478	470	461	464	465
Regan	279	294	303	311	309	300	298	300	300
Sprague	461	490	500	493	488	487	484	507	507
Tinker	572	563	552	536	520	514	509	512	513
Walsh	455	428	406	412	398	389	383	385	406
Washington	340	290	265	265	258	254	273	274	275
Wendell Cross	366	357	356	353	359	354	372	374	395
Wilson	446	446	445	445	446	439	434	436	437
PK-8s									
Carrington	487	480	432	396	371	343	332	314	312
Duggan	464	460	455	454	448	437	426	408	398
Gilmartin	506	511	510	513	515	514	517	512	504
Reed	429	469	500	516	539	538	537	528	530
Middles									
North End Middle	1,016	1,002	1,020	1,083	1,157	1,241	1,265	1,254	1,232
Wallace Middle	1,159	1,233	1,277	1,285	1,251	1,242	1,250	1,225	1,200
West Side Middle	1,021	1,036	1,055	1,037	1,046	1,043	1,036	961	921
TOTAL:	12,007	12,054	12,115	12,116	12,118	12,068	12,050	11,963	11,907