

Southington Schools Feasibility Study

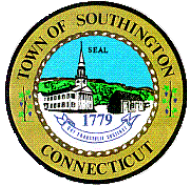
Elementary Facilities Utilization
And Alternatives for the Future

June 6, 2019



Introduction

- Updated enrollment projections
- Facilities utilization analysis
- Equitable elementary model for future planning
- Feasibility of alternatives for the future
- Next Steps



Projections: Updated

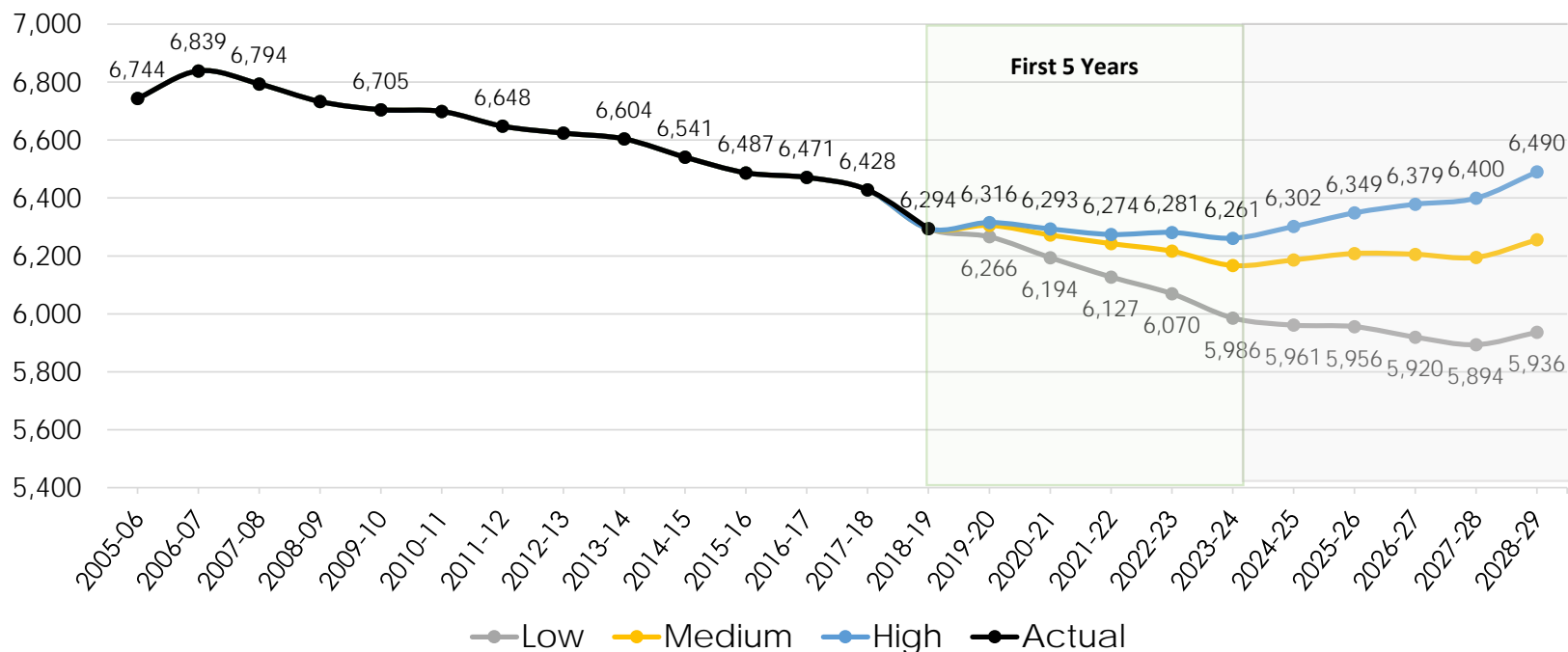
- Another year of positive in-migration
- Birth-K, K-1 and 5-6 persistency ratios down slightly
- 9-10 persistency ratio up

	B-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. of Migration
2005-06	1.0628	1.0353	1.0484	1.0100	1.0116	1.0210	1.0432	1.0037	1.0078	1.0327	0.9705	0.9929	N/A	
2006-07	1.0481	1.0906	1.0100	1.0080	1.0020	1.0038	1.0123	1.0178	1.0314	1.0289	0.9912	1.0018	0.9750	0.6%
2007-08	1.0583	1.0334	1.0199	1.0040	1.0000	1.0316	1.0171	1.0000	0.9787	1.0287	0.9532	0.9680	0.9571	1.4%
2008-09	1.1186	1.0591	0.9778	0.9735	0.9960	0.9960	1.0038	1.0131	1.0020	1.0059	0.9913	0.9627	0.9743	-1.5%
2009-10	1.0021	1.0620	0.9796	1.0021	1.0127	1.0298	1.0220	1.0076	1.0055	1.0182	0.9705	0.9719	0.9878	0.6%
2010-11	1.1311	1.0574	0.9887	1.0190	0.9835	1.0036	1.0270	0.9980	0.9981	0.9688	0.9463	1.0223	0.9837	-0.1%
2011-12	0.9929	1.0455	0.9940	0.9943	1.0186	1.0210	1.0072	1.0207	1.0078	1.0644	0.9715	1.0063	0.9921	0.7%
2012-13	1.1247	1.0690	1.0436	0.9737	1.0134	1.0256	1.0123	0.9964	0.9834	1.0195	0.9591	0.9863	1.0376	1.5%
2013-14	1.1133	1.0920	1.0290	0.9962	0.9958	1.0076	0.9982	0.9980	1.0339	0.9682	0.9656	0.9462	1.0396	0.7%
2014-15	1.1619	1.0487	1.0173	1.0108	1.0133	1.0355	0.9812	1.0018	1.0000	0.9621	0.9729	0.9881	1.0176	1.9%
2015-16	1.1787	1.0202	1.0084	1.0106	1.0257	1.0244	1.0302	1.0134	1.0143	1.0000	0.9767	0.9801	1.0120	1.7%
2016-17	1.1561	1.0098	1.0396	1.0126	1.0210	1.0146	1.0183	1.0391	1.0245	1.0053	0.9634	1.0055	1.0284	2.2%
2017-18	1.3333	1.0525	1.0121	1.0275	1.0021	1.0123	1.0041	1.0054	1.0075	0.9669	0.9563	1.0021	1.0146	1.3%
2018-19	1.2861	0.9907	1.0095	1.0096	1.0268	1.0371	0.9817	1.0061	1.0000	0.9664	0.9924	0.9909	1.0168	2.2%
3 Yr Average	1.2585	1.0176	1.0204	1.0166	1.0166	1.0214	1.0014	1.0169	1.0107	0.9795	0.9707	0.9995	1.0199	
2 Yr Average	1.3097	1.0216	1.0108	1.0186	1.0144	1.0247	0.9929	1.0058	1.0038	0.9666	0.9743	0.9965	1.0157	
3 Yr Weighted	1.2802	1.0145	1.0154	1.0161	1.0176	1.0251	0.9953	1.0114	1.0066	0.9730	0.9755	0.9971	1.0180	
3-Yr Weighted to Lowest	1.2290	1.0073	1.0154	1.0136	1.0125	1.0172	0.9953	1.0113	1.0066	0.9730	0.9647	0.9971	1.0176	
3-Yr Weighted to Highest	1.2881	1.0280	1.0254	1.0196	1.0207	1.0255	1.0075	1.0225	1.0148	0.9860	0.9767	1.0019	1.0222	

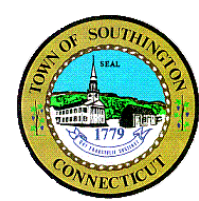


Projections: Updated

K-12 Actual and Projected Enrollments



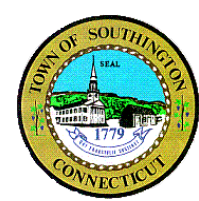
- Low, medium and high models generated from varied birth assumptions and varied weighting of last 3 years of enrollment trends
- Medium model is best fit to current data



Projections: District Update

Year	Births 5 Years Previous	K	1	2	3	4	5	6	7	8	9	10	11	12	PK	K-5	6-8	9-12	K-12	PK-12
2018-19	332	427	424	425	422	498	503	483	491	558	517	521	542	483	91	2,699	1,532	2,063	6,294	6,385
2019-20	362	456	435	433	432	429	509	504	491	496	547	502	521	553	98	2,692	1,491	2,122	6,306	6,404
2020-21	382	481	464	443	440	439	438	509	512	496	486	531	502	531	98	2,705	1,518	2,049	6,272	6,370
2021-22	365	459	489	473	451	447	449	439	518	518	486	472	530	512	98	2,768	1,474	2,000	6,243	6,341
2022-23	352	444	467	499	481	458	457	449	446	523	507	472	472	541	98	2,806	1,419	1,991	6,216	6,314
2023-24	359	451	451	477	507	489	468	457	457	451	513	492	472	481	98	2,844	1,365	1,958	6,167	6,265
2024-25	364	458	459	461	485	516	499	469	465	462	442	498	492	481	98	2,878	1,395	1,913	6,186	6,284
2025-26	364	459	466	469	468	493	527	500	477	470	452	429	497	502	98	2,882	1,447	1,880	6,209	6,307
2026-27	361	454	467	476	477	476	503	528	509	482	460	439	429	507	98	2,853	1,518	1,835	6,206	6,304
2027-28	360	453	462	476	484	484	486	504	537	514	472	447	439	437	98	2,846	1,555	1,795	6,195	6,293
2028-29	362	455	461	472	484	492	495	487	513	542	503	458	447	448	98	2,858	1,542	1,856	6,256	6,354

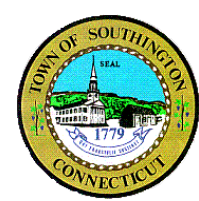
- Medium model projects increase at elementary level of almost 3% over next five years, partially as a result of known birth increases
- Middle schools projected to decrease 10+% over the next five years before rebounding due to smaller elementary cohorts
- High school projected to decrease almost 6% over next five years



Projections: Elementary Update

	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	24-25	25-26	26-27	27-28	28-29
Derynoski	660	636	609	599	559	550	535	541	559	565	587	601	595	597	587	583	586
Flanders	280	293	293	300	271	283	286	281	275	287	296	277	285	287	286	287	288
Hatton	352	360	371	378	363	347	332	322	317	320	319	326	334	337	338	340	342
Kelley	374	359	340	319	324	305	289	286	287	291	288	297	306	311	306	311	312
Plantsville	281	276	287	288	279	274	265	272	271	270	269	271	275	275	268	267	268
South End	235	237	245	230	229	229	233	254	247	256	250	254	260	249	249	246	247
Strong	356	327	309	295	276	267	281	285	285	300	311	325	321	319	318	316	317
Thalberg	427	423	427	429	436	444	446	451	463	480	486	493	503	506	500	496	499

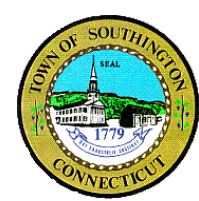
- Strong, Derynoski, Thalberg and South End projected to have strongest growth over next five years
- Flanders and Hatton relatively stable over entire projection horizon



Projections: Middle Update

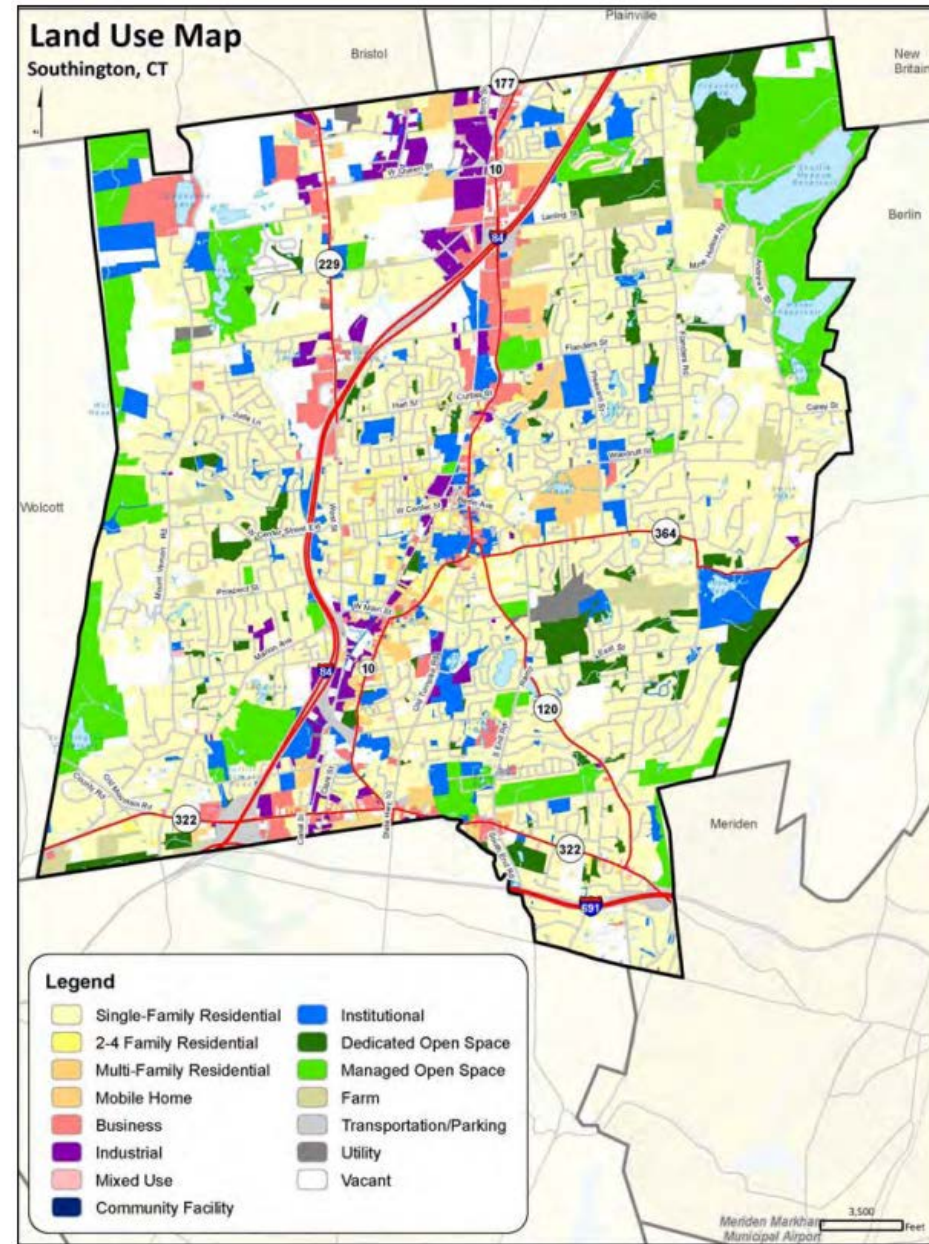
	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	24-25	25-26	26-27	27-28	28-29
DePaolo	735	776	727	743	797	765	741	729	752	742	714	687	702	728	763	782	775
Kennedy	845	848	826	839	801	792	764	762	766	733	705	678	693	719	754	773	767

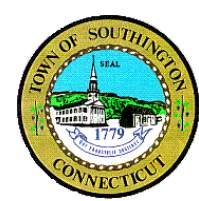
- Current middle school districts projected to maintain relatively balanced enrollments
- However, they do not align with elementary school boundaries
 - Derynoski and Kelley schools split between the two middle schools



Projections: Housing Development

- Most remaining vacant residentially zoned land located in Thalberg and Flanders districts
 - Vast majority of vacant residential land in Flanders is actively farmed (Rogers Orchards)
 - Potential for growth in northwest corner and infill development in center





Facilities: Elementary Schools

School	Original Construction	Last Major Renovation	# of General Classrooms	Capacity
Derynoski	1950	1992	37	775
Flanders	1966		21	450
Hatton	1953	2002	29	550
Kelley	1966		21	450
Plantville	1961	2010	15	300
South End	2010		15	300
Strong	1958	2003	23	500
Thalberg	1959	2002	24	500

Source: CT State Department of Education

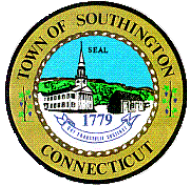
- Toured all buildings and reviewed current utilization with principals
- Wide disparity in size and vintage of schools
- Flanders and Kelley targeted for renovation due to age and never having been renovated



Facilities: Current Elementary Capacity

School	Full-Size Classrooms							Less than Full-Size Rooms			Seat Capacity	2018-19 Enroll	% Utilization
	TOTAL	PK	K-5	Res- ource/ SPED	Comp. Lab	District- wide Program/ FRC	Other	Res- ource/ SPED	Other	Total Less than Full-Size			
Derynoski	37	0	28	5	1	0	3	4	3	7	687	535	77.9%
Flanders	21	0	17	4	0	0	0	0	1	1	377	286	75.9%
Hatton	29	3	18	3	0	3	2	5	0	5	458	332	72.5%
Kelley	21	0	17	2	0	1	1	2	2	4	404	289	71.6%
Plantsville	15	0	14	1	0	0	0	4	3	7	310	265	85.4%
South End	15	0	13	0	1	0	1	5	2	7	310	233	75.1%
Strong	23	1	15	2	1	1	3	4	2	6	404	281	69.6%
Thalberg	24	0	23	0	0	0	1	6	2	8	532	446	83.9%
TOTAL:	185	4	145	17	3	5	11	30	15	45	3,481	2,667	76.6%

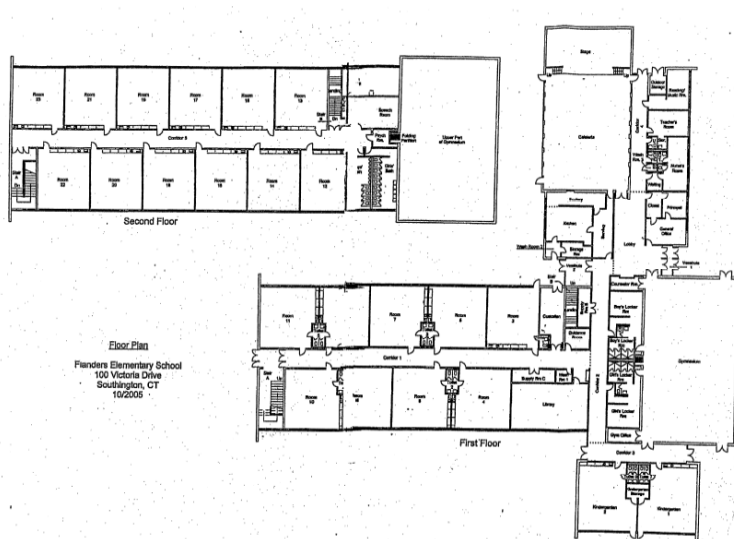
- Seat capacity is determined by the **current use** of buildings
 - K-5 classrooms at policy max per grade
 - Other full-size classrooms assumed 22 student loading level
 - Districtwide Program classrooms loaded at 5 students per
- While no school operating above capacity, some schools constrained by types of spaces available



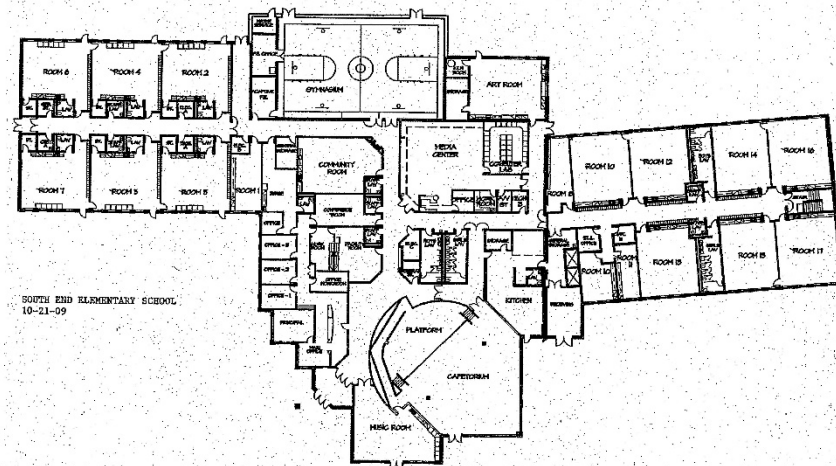
Facilities: Elementary Capacity

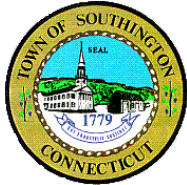
- Older schools have limited small spaces available due to design
- Therefore, inadequate spaces (such as storage closets) may be used, or full-size classrooms are shared by several staff

Flanders – Outside of administrative, nurse and psych offices, only 1 small- to mid-size classroom



South End - Designed with more flexible spaces, has 7 small- to mid-size classrooms

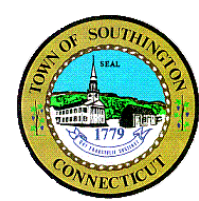




Facilities: Elementary Categories

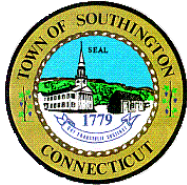
- Given disparity in overall size and vintage of buildings, a standard program deployment across all buildings is not feasible
- Developed four categories, based on:
 - Current number of instructional classrooms
 - Current availability of suitable space for service and program delivery

Category	School	Total Full-Size Classrooms	Less Than Full-Size Rooms
A	Derynoski	37	7
B	Hatton	29	5
B	Strong	23	6
B	Thalberg	23	8
C	Plantsville	15	7
C	South End	15	7
D	Flanders	21	1
D	Kelley	21	4



Facilities: Future Space Needs

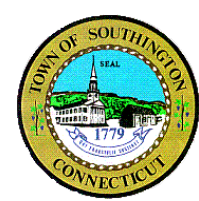
- Projected enrollments will require approximately 9 additional K-5 classrooms across the district at current loading levels
- Also, additional PreK classroom anticipated next year
- District objectives to institute World Language and STEM programming at elementary level will require additional space



Facilities: Model for Future

- To better balance utilization and efficiently accommodate additional students and programming, developed a sections-per-grade model stratified by school category
- Accommodates made for schools with current districtwide programs and fewer flexible spaces
- Model raises overall seat capacity

Category	School	Sections per Grade	Full-Size Classrooms						Seat Capacity
			TOTAL	PK	K-5	Resource/SPED	District-wide Program/FRC	Other	
A	Derynoski	5	37	0	32	4	0	1	731
B	Hatton	3	29	3	21	1	3	1	503
B	Strong	3	23	2	20	0	1	0	448
B	Thalberg	3	23	0	21	1	0	1	488
C	Plantsville	2	15	0	14	1	0	0	310
C	South End	2	15	0	14	1	0	0	310
D	Flanders	2	21	0	15	4	0	2	377
D	Kelley	2	21	0	15	4	1	1	360
TOTAL:			184	5	152	16	5	6	3,526

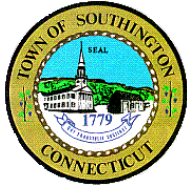


Facilities: Model Explained

- The model's capacities are based on the number of class sections plus additional classrooms to accommodate for enrollment fluctuations

$$\begin{aligned} &6 \text{ Grades (K-5) x Class Sections} = \text{Minimum Instructional Classrooms} \\ &\quad + \\ &\quad \text{Additional Classrooms (3 for larger, 2 for smaller schools)} \\ &\quad + \\ &\quad \text{SPED/Resources} \end{aligned}$$

- When not needed to accommodate additional sections, additional classrooms are available for SPED, districtwide programming, STEM, World Language, etc.

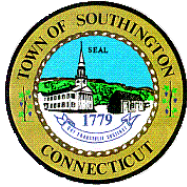


Facilities: Model Explained

- High number of full-size Resource Rooms reserved for Category D schools due to lack of small spaces within building
- High number of full-size Resource Rooms reserved in Derynoski because of high enrollment
- Low number of full-size Resource Rooms for Categories B and C schools due to availability of adequate smaller spaces

Category	School
A	Derynoski
B	Hatton
B	Strong
B	Thalberg
C	Plantsville
C	South End
D	Flanders
D	Kelley

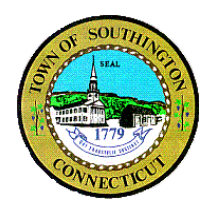
Under this model, District should look to shift more students to Derynoski, Hatton, and Strong.



Facilities: Implementing the Model

Category	School	Sections per Grade	Seat Capacity	90% Utilization Target	2018-19 Actual	
					Enroll	Utilization
A	Derynoski	5	731	658	535	73%
B	Hatton	3	503	452	332	66%
B	Strong	3	448	404	281	63%
B	Thalberg	3	488	439	446	91%
C	Plantville	2	310	279	265	85%
C	South End	2	310	279	233	75%
D	Flanders	2	377	339	286	76%
D	Kelley	2	360	324	289	80%
TOTAL:			3,526	3,174	2,667	76%

- 90% utilization a good target for elementary school system
- Overall utilization under the sections-per-grade model remains low
- Disparities in individual school utilization figures demonstrate need to redistribute students to implement the model



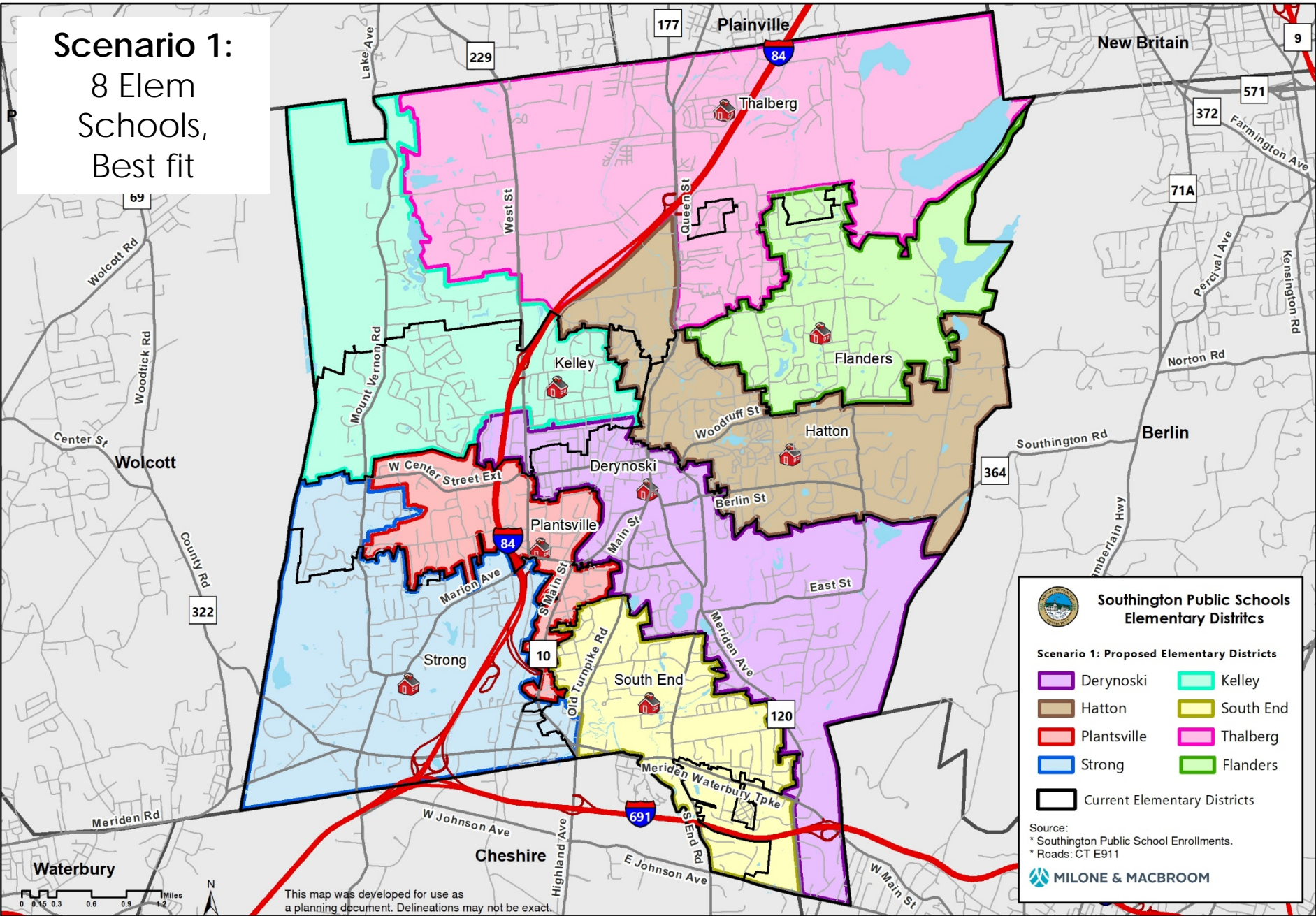
Facilities: Alternatives

- Objectives for alternatives:
 - Improve efficiency in system with overall utilization closer to targeted levels
 - Better balance individual facilities' utilization
 - Explore creating direct feeder pattern to middle schools
- Six scenarios developed
 - Scenarios are intended to assist the Board of Ed in setting a direction for additional planning for the future of facilities
 - Coarse look at feasibility – more detailed study and planning required to implement any one of these scenarios
 - Flanders targeted for consolidation in some scenarios due to age, size, and location

Scenarios may be viewed at

<https://tinyurl.com/SouthingtonSchools>

Scenario 1: 8 Elem Schools, Best fit



**Southington Public Schools
Elementary Districts**

Scenario 1: Proposed Elementary Districts

Derynoski	Kelley
Hatton	South End
Plantsville	Thalberg
Strong	Flanders

Current Elementary Districts

Source:
 * Southington Public School Enrollments.
 * Roads: CT E911

MILONE & MACBROOM



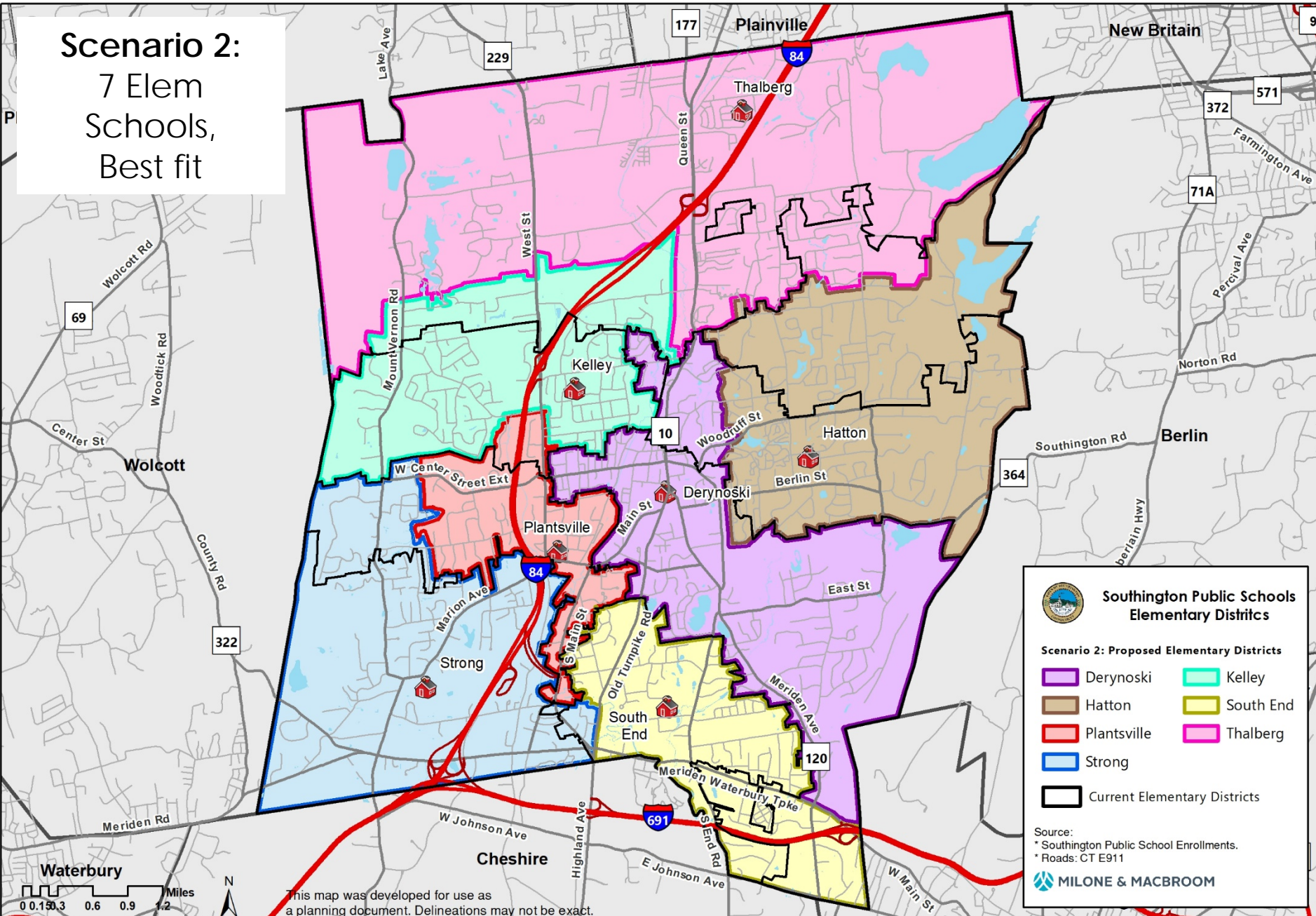
Feasibility: Scenario 1

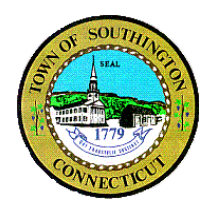
- Balance utilization under model
- Minimal change
- Does not address split feeder to middle schools
- Overall utilization remains below target level

School	Scenario 1	
	2018-19 % Utilization (Total Capacity)	2024-25 Projected % Utilization (Total Capacity)
Derynoski	79.2%	85.8%
Hatton	76.1%	80.8%
Strong	76.1%	85.5%
Thalberg	76.2%	87.6%
Plantsville	72.6%	72.8%
South End	75.8%	83.8%
Flanders	74.0%	70.4%
Kelley	76.4%	78.6%
Total	76.2%	81.6%

Scenario 2:

7 Elem
Schools,
Best fit



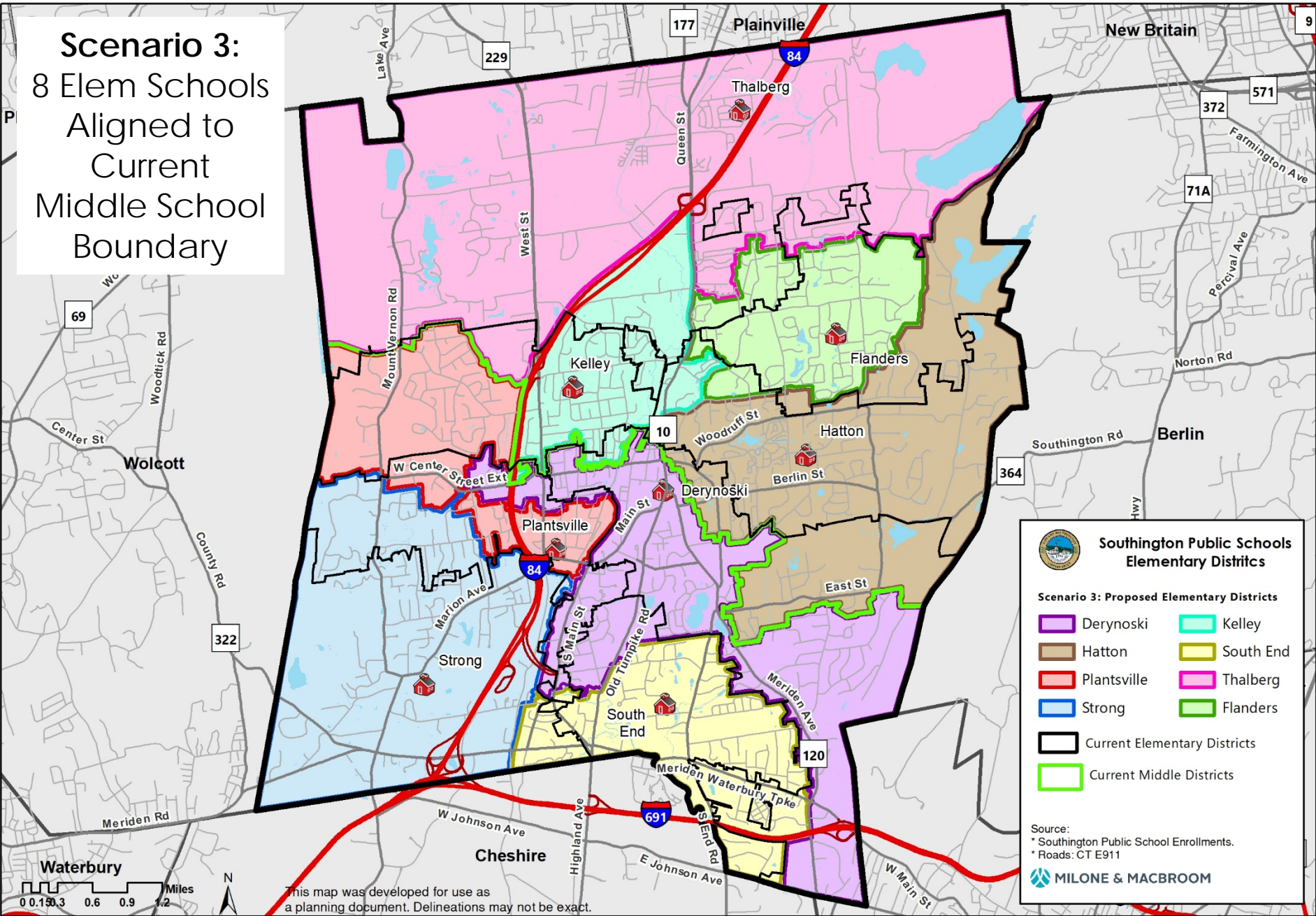


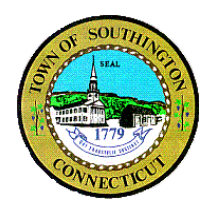
Feasibility: Scenario 2

- Balance utilization amongst seven elementary schools
- Disparities increase as enrollment increases, with Thalberg reaching capacity
- Does not address split feeder to middle schools
- Overall district utilization above target levels

School	Scenario 2	
	2018-19 % Utilization (Total Capacity)	2024-25 Projected % Utilization (Total Capacity)
Derynoski	87.7%	95.0%
Hatton	86.9%	90.3%
Strong	79.5%	89.4%
Thalberg	87.7%	99.2%
Plantsville	79.0%	72.8%
South End	87.4%	95.0%
Flanders	0.0%	0.0%
Kelley	85.6%	90.2%
Total	85.3%	91.4%

Scenario 3:
8 Elem Schools
Aligned to
Current
Middle School
Boundary





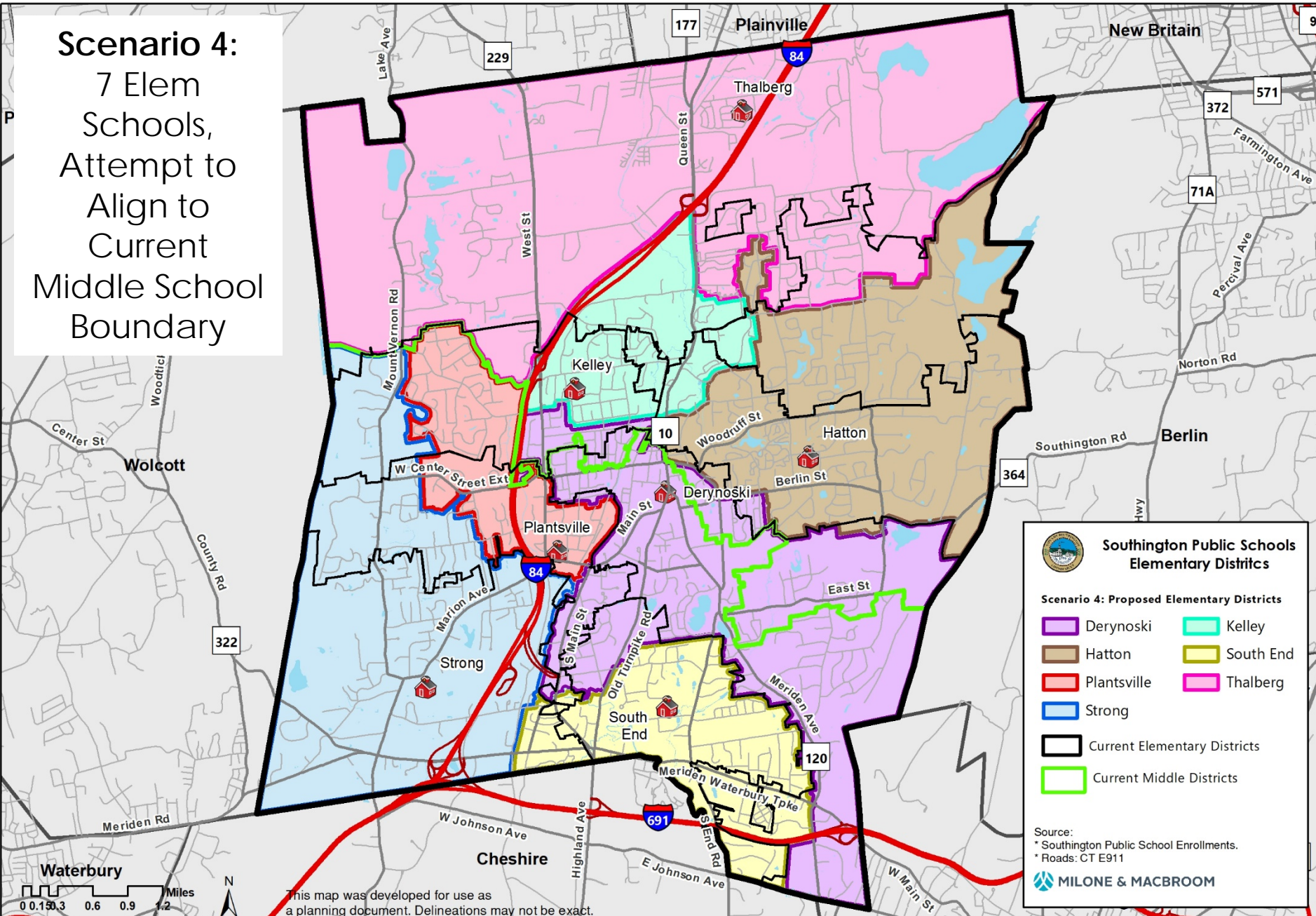
Feasibility: Scenario 3

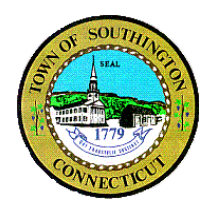
- Balance elementary utilization
- Eliminate split feeder pattern to current middle school boundaries
- Elementary boundaries become unnatural
- Overall district utilization below target level

School	Scenario 3	
	2018-19 % Utilization (Total Capacity)	2024-25 Projected % Utilization (Total Capacity)
Derynoski	71.3%	76.3%
Hatton	78.5%	90.5%
Strong	74.8%	83.8%
Thalberg	75.2%	86.3%
Plantsville	81.3%	84.3%
South End	76.8%	82.4%
Flanders	81.4%	77.0%
Kelley	75.6%	72.4%
Total	76.2%	81.6%

Scenario 4:

7 Elem
Schools,
Attempt to
Align to
Current
Middle School
Boundary

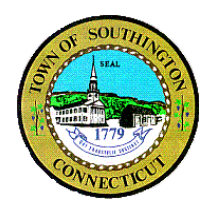




Feasibility: Scenario 4

- Attempt to balance utilization of seven elementary schools while eliminating split feeder pattern to current middle schools
- Direct feeder pattern difficult due to loss of capacity at Flanders – need about 100 additional elementary seats in schools feeding DePaolo
- Disparities increase as enrollment increases
- Overall district utilization above target level (additional capacity of about 100 seats would bring overall utilization to 89%)

School	Scenario 4	
	2018-19 % Utilization (Total Capacity)	2024-25 Projected % Utilization (Total Capacity)
Derynoski	87.3%	97.4%
Hatton	87.5%	89.5%
Strong	81.3%	91.0%
Thalberg	87.7%	95.0%
Plantsville	85.2%	87.7%
South End	76.8%	102.9%
Flanders	0.0%	0.0%
Kelley	87.2%	71.5%
Total	85.3%	91.4%

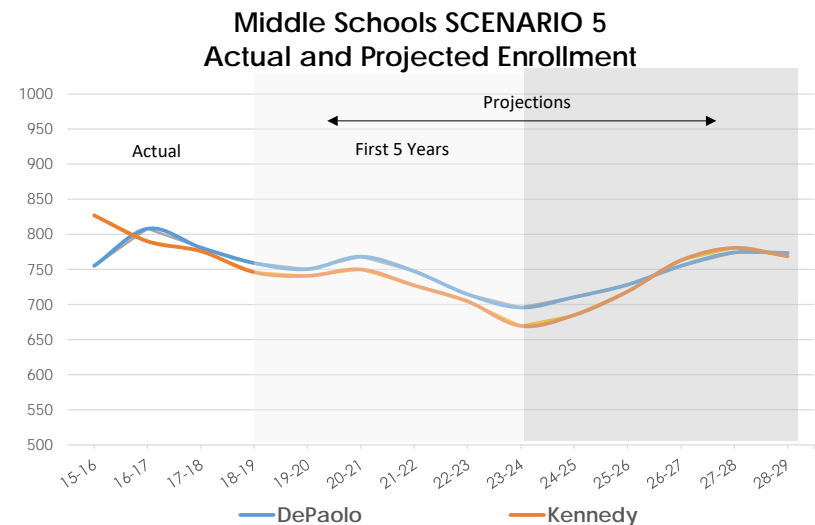


Feasibility: Scenario 5

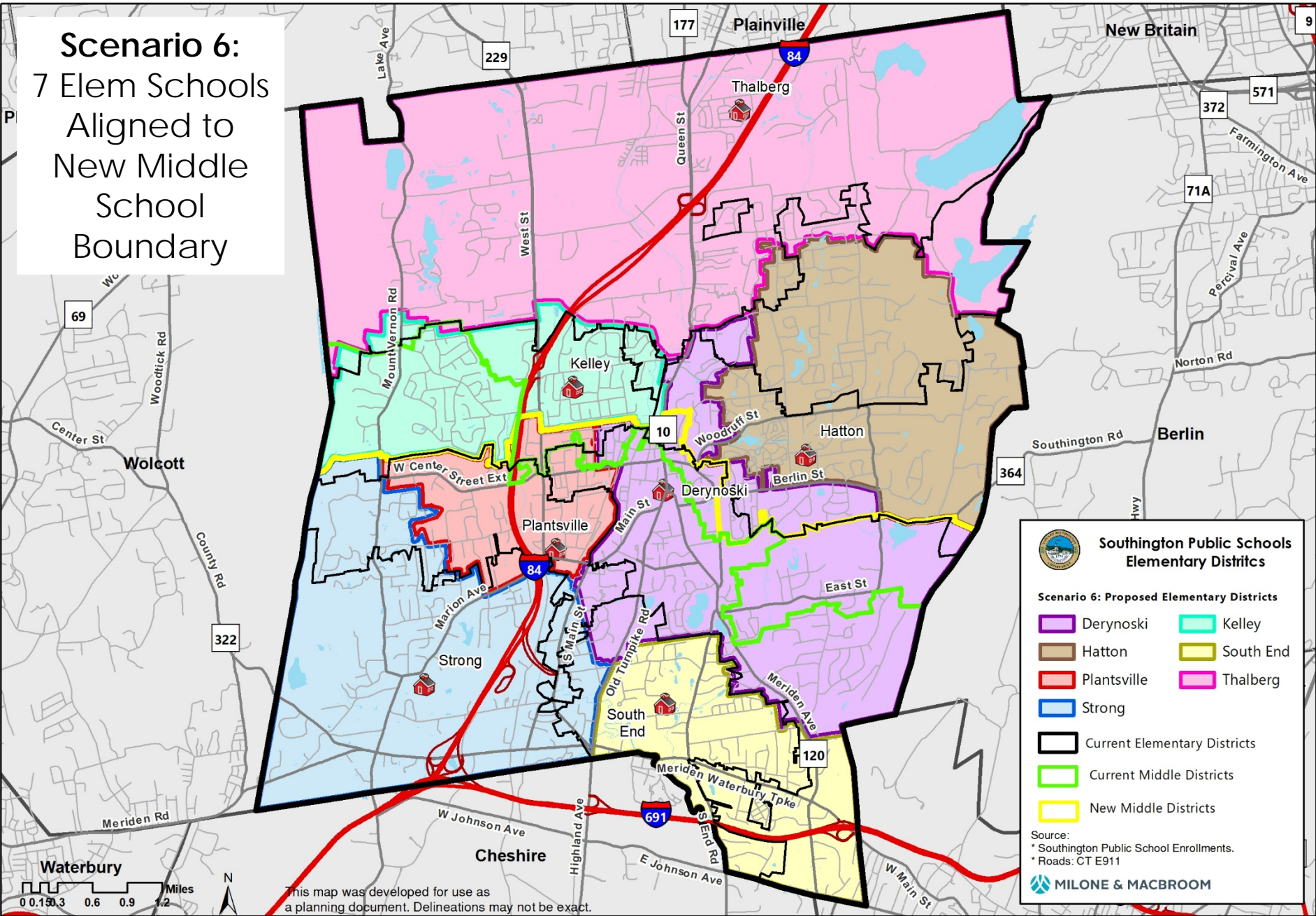
- Adjust middle school boundaries to facilitate direct feeder pattern
- Balance elementary schools utilization
- Disparities at elementary level increase as enrollment increases
- Overall district utilization below target level

School	Scenario 5	
	2018-19	2024-25
DePaolo	759	711
Kennedy	746	685
Total	1,505	1,395

School	Scenario 5	
	2018-19 % Utilization (Total Capacity)	2024-25 Projected % Utilization (Total Capacity)
Derynoski	70.9%	77.8%
Hatton	88.9%	91.5%
Strong	79.7%	89.5%
Thalberg	71.3%	83.7%
Plantsville	75.2%	79.7%
South End	77.4%	84.9%
Flanders	74.0%	72.1%
Kelley	73.6%	70.7%
Total	76.2%	81.6%



Scenario 6: 7 Elem Schools Aligned to New Middle School Boundary



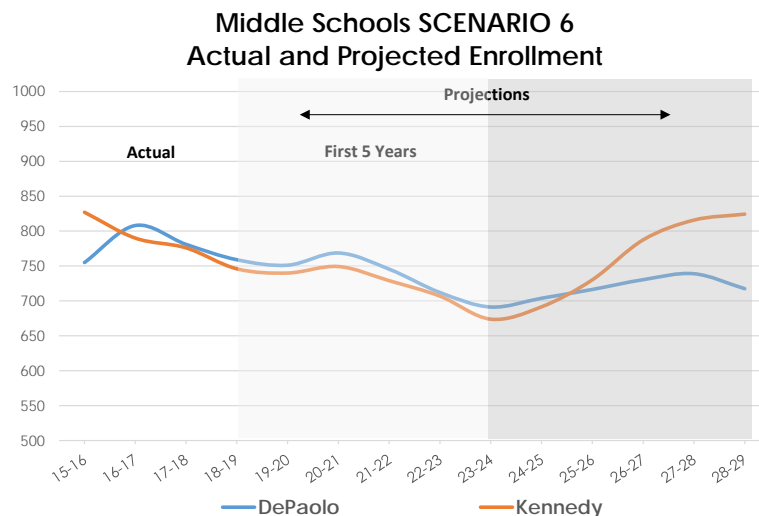


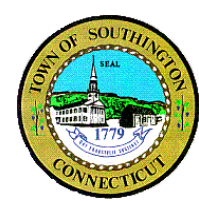
Feasibility: Scenario 6

- Adjust middle school boundaries to facilitate direct feeder pattern
- Balance utilization of seven elementary schools
- Direct feeder pattern difficult due to loss of capacity at Flanders – about 100 additional seats would ease
- Disparities increase as enrollment increases
- Overall district utilization above target level (about 100 additional seats would bring overall utilization to 89%)

School	Scenario 6	
	2018-19 % Utilization (Total Capacity)	2024-25 Projected % Utilization (Total Capacity)
Derynoski	88.0%	89.5%
Hatton	85.3%	91.7%
Strong	83.5%	96.1%
Thalberg	86.1%	97.8%
Plantsville	86.8%	92.7%
South End	80.6%	88.6%
Flanders	0.0%	0.0%
Kelley	82.8%	81.2%
Total	85.3%	91.4%

School	Scenario 6	
	2018-19	2024-25
DePaolo	759	704
Kennedy	746	692
Total	1,505	1,395





Feasibility: Scenarios Summary

- Maintaining 8 current elementary schools results in under-utilization of buildings in current and projected numbers (76% in 18-19 and 82% in 24-25) with model implemented
- However, consolidating Flanders pushes utilization above targeted 90% by 24-25 and may exacerbate inequities in utilization of elementary buildings
- Consolidation of Flanders with a small addition of capacity (approximately 100 seats) to Kelley (assuming Kelley would be renovated) would facilitate model implementation with realignment to develop direct feeder pattern to middle schools



Feasibility: Next Steps

- Feasibility Report to be disseminated widely to Town Officials, parents, community members and staff
- Board of Education to solicit input from Town Officials, parents, community members and staff
- Board of Education to develop recommendation(s) for action based on information in the report and input from stakeholders



Questions

