TABLE 1C

Newton Public Schools
10 Year Projections by School

District Enrollment - Ten Year Projection Summary

- Enrollment is stable for the next five years at 12,700 students, then declines to 12,418 in years six through ten.
- Enrollment decreases are attributed to larger graduating classes replaced by smaller kindergarten classes.
- The movement of the same two large cohorts of more than 1,000 students that impacts K-8 enrollment in the next five years impacts high school enrollment in years six through ten.
- Grade cohort movement is assumed to stay consistent with the past.
- Kindergarten classes are assumed to remain around 850 students.

It is important to note that:
- Short-term projections are generally more accurate than long-term projections.
- Secondary enrollment levels can be projected over a longer timeframe with a greater assurance of reliability.

The full November 2018 Enrollment Analysis Report is available on the Newton Public Schools website.

	Actual	5 Yr Projections					10 Yr Projections				
	FY19	**FY20**	**FY21**	**FY22**	**FY23**	**FY24**	**FY25**	**FY26**	**FY27**	**FY28**	**FY29**
School Name	2018	**2019**	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**	**2026**	**2027**	**2028**
Angier	503	517	520	524	516	524	515	517	516	518	518
Bowen	397	361	363	357	354	350	355	353	352	351	351
Burr	384	367	348	341	347	338	338	338	341	340	341
Cabot	386	395	403	420	438	452	458	461	460	459	460
Countryside	413	404	388	385	380	376	377	375	376	377	379
Franklin	427	417	391	387	361	359	359	355	351	355	357
Horace Mann	399	388	392	380	371	374	371	374	375	377	376
Lincoln-Eliot	365	355	346	346	335	326	323	324	325	327	330
Mason-Rice	487	462	430	405	390	385	386	382	382	383	384
Memorial-Spaulding	464	467	460	453	447	439	445	442	441	437	440
Peirce	271	284	280	294	303	314	320	319	319	319	318
Underwood	290	284	263	262	256	258	254	255	250	251	252
Ward	296	288	281	282	280	288	287	282	281	280	281
Williams	278	279	287	278	284	280	280	277	276	278	279
Zervas	427	456	477	505	503	520	521	526	527	526	525
Total Elem	**5,787**	**5,724**	**5,629**	**5,619**	**5,565**	**5,583**	**5,589**	**5,580**	**5,572**	**5,578**	**5,591**
Change	*-37*	*-63*	*-95*	*-10*	*-54*	*18*	*6*	*-9*	*-8*	*6*	*13*
% Change	*-0.6%*	*-1.1%*	*-1.7%*	*-0.2%*	*-1.0%*	*0.3%*	*0.1%*	*-0.2%*	*-0.1%*	*0.1%*	*0.2%*
Bigelow	501	512	558	548	542	495	501	486	495	490	485
Brown	744	771	821	833	827	789	753	748	758	759	753
Day	976	994	980	958	942	894	883	877	886	898	897
Oak Hill Middle	630	636	669	689	702	708	706	684	683	688	687
Total Middle School	**2,851**	**2,913**	**3,028**	**3,028**	**3,013**	**2,886**	**2,843**	**2,795**	**2,822**	**2,835**	**2,822**
Change	*-17*	*62*	*115*	*0*	*-15*	*-127*	*-43*	*-48*	*27*	*13*	*-13*
% Change	*-0.6%*	*2.2%*	*3.9%*	*0.0%*	*-0.5%*	*-4.2%*	*-1.5%*	*-1.7%*	*1.0%*	*0.5%*	*-0.5%*
North	2,136	2,108	2,152	2,189	2,188	2,251	2,198	2,179	2,117	2,022	2,021
South	1,911	1,957	1,911	1,909	1,945	1,979	2,053	2,084	2,048	2,005	1,984
Total High School	**4,047**	**4,065**	**4,063**	**4,098**	**4,133**	**4,230**	**4,251**	**4,263**	**4,165**	**4,027**	**4,005**
Change	*-11*	*18*	*-2*	*35*	*35*	*97*	*21*	*12*	*-98*	*-138*	*-22*
% Change	*-0.3%*	*0.4%*	*0.0%*	*0.9%*	*0.9%*	*2.3%*	*0.5%*	*0.3%*	*-2.3%*	*-3.3%*	*-0.5%*
Grand Total	**12,685**	**12,702**	**12,720**	**12,745**	**12,711**	**12,699**	**12,683**	**12,638**	**12,559**	**12,440**	**12,418**
Change	*-65*	*17*	*18*	*25*	*-34*	*-12*	*-16*	*-45*	*-79*	*-119*	*-22*
% Change	*-0.5%*	*0.1%*	*0.1%*	*0.2%*	*-0.3%*	*-0.1%*	*-0.1%*	*-0.4%*	*-0.6%*	*-0.9%*	*-0.2%*

Note: Elementary student assignment changes (2015 and 2018 approved changes) occur in the first five years of the projection. Middle School and High School student assignment changes occur in years 6 through 10 of the ten-year projection.

TABLE 1C

Newton Public Schools
10 Year Projections by School

NORTHLAND SCENARIO
Assumed Districted Schools:
Countryside, Brown, Newton South

District Enrollment - Ten Year Projection Summary - Scenario for Enrollment Impact of Northland

Elementary School
- Enrollment decreases in 2020-21 when the second of two grade cohorts over 1,000 students moves to middle school.
- Enrollment stabilizes around 5,600 students

Middle School
- Enrollment decreases in 2023-24 when the two large grade cohorts over 1,000 students moves to high school.
- Enrollment stabilizes around 2,850 students.

High School
- Enrollment grows until 2026-27 when the large grade cohorts over 1,000 begin to graduate.
- Enrollment declines by 240 students during the next three years
- Enrollment stabilizes around 4,050 students

Student estimates from Northland Development are phased-in based on projected build out of 200 units in FY24, 221 units in FY25, 200 units in FY27, 201 units in FY28.

	Actual	5 Yr Projections					10 Yr Projections				
	FY19	FY20	FY21	FY22	FY23	FY24	FY25	FY26	FY27	FY28	FY29
School Name	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Angier	503	517	520	524	516	524	515	517	516	518	518
Bowen	397	361	363	357	354	350	355	353	352	351	351
Burr	384	367	348	341	347	338	338	338	341	340	341
Cabot	386	395	403	420	438	452	458	461	460	459	460
Countryside	413	404	388	385	380	376	391	403	418	433	449
Franklin	427	417	391	387	361	359	359	355	351	355	357
Horace Mann	399	388	392	380	371	374	371	374	375	377	376
Lincoln-Eliot	365	355	346	346	335	326	323	324	325	327	330
Mason-Rice	487	462	430	405	390	385	386	382	382	383	384
Memorial-Spaulding	464	467	460	453	447	439	445	442	441	437	440
Peirce	271	284	280	294	303	314	320	319	319	319	318
Underwood	290	284	263	262	256	258	254	255	250	251	252
Ward	296	288	281	282	280	288	287	282	281	280	281
Williams	278	279	287	278	284	280	280	277	276	278	279
Zervas	427	456	477	505	503	520	521	526	527	526	525
Total Elem	**5,787**	**5,724**	**5,629**	**5,619**	**5,565**	**5,583**	**5,603**	**5,608**	**5,614**	**5,634**	**5,661**
Change	*-37*	*-63*	*-95*	*-10*	*-54*	*18*	*20*	*5*	*6*	*20*	*27*
% Change	*-0.6%*	*-1.1%*	*-1.7%*	*-0.2%*	*-1.0%*	*0.3%*	*0.4%*	*0.1%*	*0.1%*	*0.4%*	*0.5%*
Bigelow	501	512	558	548	542	495	501	486	495	490	485
Brown	744	771	821	833	827	789	763	768	788	789	783
Day	976	994	980	958	942	894	883	877	886	898	897
Oak Hill Middle	630	636	669	689	702	708	706	684	683	688	687
Total Middle School	**2,851**	**2,913**	**3,028**	**3,028**	**3,013**	**2,886**	**2,853**	**2,815**	**2,852**	**2,865**	**2,852**
Change	*-17*	*62*	*115*	*0*	*-15*	*-127*	*-33*	*-38*	*37*	*13*	*-13*
% Change	*-0.6%*	*2.2%*	*3.9%*	*0.0%*	*-0.5%*	*-4.2%*	*-1.1%*	*-1.3%*	*1.3%*	*0.5%*	*-0.5%*
North	2,136	2,108	2,152	2,189	2,188	2,251	2,198	2,179	2,117	2,022	2,021
South	1,911	1,957	1,911	1,909	1,945	1,979	2,063	2,104	2,078	2,045	2,024
Total High School	**4,047**	**4,065**	**4,063**	**4,098**	**4,133**	**4,230**	**4,261**	**4,283**	**4,195**	**4,067**	**4,045**
Change	*-11*	*18*	*-2*	*35*	*35*	*97*	*31*	*22*	*-88*	*-128*	*-22*
% Change	*-0.3%*	*0.4%*	*0.0%*	*0.9%*	*0.9%*	*2.3%*	*0.7%*	*0.5%*	*-2.1%*	*-3.1%*	*-0.5%*
Grand Total	**12,685**	**12,702**	**12,720**	**12,745**	**12,711**	**12,699**	**12,717**	**12,706**	**12,661**	**12,566**	**12,558**
Change	*-65*	*17*	*18*	*25*	*-34*	*-12*	*18*	*-11*	*-45*	*-95*	*-8*
% Change	*-0.5%*	*0.1%*	*0.1%*	*0.2%*	*-0.3%*	*-0.1%*	*0.1%*	*-0.1%*	*-0.4%*	*-0.8%*	*-0.1%*

Note: Elementary student assignment changes (2015 and 2018 approved changes) occur in the first five years of the projection. Middle School and High School student assignment changes occur in years 6 through 10 of the ten-year projection.

Estimated Enrollment of Proposed Residential Development
(Based on NPS Interim Student Generation Ratios)
and Actual Enrollment for Existing Complexes

DEC-2018

Development Name (Units >10)	*First Year*	*Fully Phased In*	Oct-18 Project Status	Total SG # Added to Projections	# Units by Type								Total	Statistics		
					Studio	1BR-M	2BR-M	3BR-M	St-A	1BR-A	2BR-A	3BR-A		Avg SGR	% Affordable	Avg # BRs
Northland (Needham Street)			SP Application	N/A										Estimated		
# Units					**70**	**315**	**279**	**35**	**12**	**56**	**50**	**5**	**822**	**0.220**	**15%**	**1.40**
# Students Projected Method 1 (NPS Original)					0	0	60	28	0	0	51	14	153			
# Students Projected Method 2 (Units Types have equal weight in SGR)					15	69	61	8	3	12	11	1	180			
# Students Projected Method 3 (Unit Types are weighted based on PUMS)					4	12	123	12	1	2	22	2	178			
Total # Students - Average of 3 Methods					**6**	**27**	**81**	**16**	**1**	**5**	**28**	**6**	**170**			
Less: Private School (12%)					-1	-3	-10	-2	0	-1	-3	-1	-21			
Less: Out-of-assigned district (5%)					0	-1	-4	-1	0	0	-1	0	-7			
Total impact on districted schools					**5**	**23**	**67**	**13**	**1**	**4**	**24**	**5**	**142**			

NEWTON PUBLIC SCHOOLS

Interim Methodology for Estimating Student Generation Rates (SGRs)
for Large Residential Housing Complexes (November 2018)

Method 1: SGR by Unit Typed developed NPS (2000) using Newton's actual SGR's at Avalon CH, Avalon NH, Arborpoint WS; Weighting by Unit Types was based on industry standards in the early 2000s.

SGR by Bedroom	Differentiated by Market and Affordable Rate Units							
	Studio	1BR-M	2BR-M	3BR-M	Stu-A	1BR-A	2BR-A	3BR-A
Avg. 3 Largest	0.000	0.000	0.214	0.800	0.000	0.000	1.018	2.792
Avalon NH	0.000	0.000	0.192	0.740	0.000	0.000	0.914	2.579
Avalon CH	0.000	0.000	0.193	0.731	0.000	0.000	0.922	2.548
Arborpoint	0.000	0.000	0.258	0.929	0.000	0.000	1.219	3.250
Grove Street	0.000	0.000	0.650	0.000	0.000	0.000	0.000	0.000

Method 2: There is no weighting by Unit Type and it is assumed that all units generate an equal number of students. The complex SGR is adjusted based on the average number of bedrooms in units.

Residential Complex	Average Bedrooms	Actual SGR
Avalon at Newton Highlands	1.878	0.351
Avalon at Chestnut Hill	2.005	0.359
Arborpoint Woodland Station	1.633	0.290
Grove Street, 264-290	1.508	0.370
392-396 Langley	1.433	0.356
402-404 Langley	1.938	0.229

New Residential Complex	Average Bedrooms	Estimated SGR
Court Street, 75-83	1.972	0.333
Kessler Woods	1.614	0.273
Austin Street	1.574	0.266
Washington Place	1.393	0.235
Northland (Needham Street)	1.398	0.236
Chestnut Hill	1.600	0.270

Method 3: SGR is adjusted by the average number of bedrooms, using the average of the complex SGR and number of units from the three largest residential complexes in Newton. *Weighting by Unit Type is based on PUMS data (Tischler Bise, 2018) which indicates that the greatest percentage of families with school age children live in 2 bedroom apartments.

Adjusted SGR by Avg # of Bedrooms	Blended SGR-Market & Affordable							
	Studio	1BR-M	2BR-M	3BR-M	Stu-A	1BR-A	2BR-A	3BR-A
Weighting*	**28%**	**17%**	**201%**	**154%**	**28%**	**17%**	**201%**	**154%**
0.32	0.089	0.055	0.634	0.486	0.089	0.055	0.634	0.486
0.30	0.084	0.052	0.602	0.461	0.084	0.052	0.602	0.461
0.28	0.079	0.049	0.562	0.431	0.079	0.049	0.562	0.431
0.26	0.073	0.045	0.522	0.400	0.073	0.045	0.522	0.400
0.24	0.068	0.042	0.482	0.369	0.068	0.042	0.482	0.369
0.22	0.062	0.038	0.441	0.338	0.062	0.038	0.441	0.338
0.20	0.056	0.035	0.401	0.308	0.056	0.035	0.401	0.308