

RIDGEWOOD DOWNTOWN ZONING IMPACTS ANALYSIS

Village of Ridgewood, NJ

March 2016

Prepared for:
Village of Ridgewood
131 N. Maple Avenue
Ridgewood, NJ 07450

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1.0 INTRODUCTION

1.1 STUDY BACKGROUND

In June 2015, the Village of Ridgewood Planning Board adopted an amendment to the Land Use Element of the Village's Master Plan. The amendment, developed in response to several developer proposals in the Central Business District (CBD), was intended to fulfill a range of land use policies and objectives, including promoting space in appropriate locations for both commercial and residential uses, supporting transit-oriented development near the Ridgewood train station and various bus stops and routes, and accommodating residential uses that can address the housing needs of seniors and low- and moderate-income households.

The Land Use Element amendment advocated for the creation of three new zoning districts to achieve these objectives, as follows:

- **AH-2 Affordable Housing Zone:** Intended to promote the development of multifamily housing, with a portion restricted to low- and moderate-income households.
- **B-3-R Business – Residential Zone:** Intended to promote development that accommodates multifamily housing in a manner that is consistent with the existing commercial development pattern in the CBD, with a portion of the Ridgewood Avenue frontage required to be devoted to retail sales, eating and drinking places, banks and personal services as permitted in the B-1 district.
- **C-R Commercial – Residential Zone:** Intended to promote development that accommodates multifamily housing in a manner that is consistent with the existing commercial development pattern in the CBD.

The Ridgewood Village Council considered adoption of the proposed zoning ordinances throughout the fall of 2015. The proposals generated significant interest from the public, with concerns expressed about potential impacts to traffic, taxes and the school district. In December 2015, in response to these concerns, the Council sought proposals from consultant firms to provide an analysis for four areas of potential impact: 1) traffic (vehicular as well as pedestrian); 2) fiscal health; 3) school district capacity; and 4) community facilities and infrastructure (water, sewer and emergency services).

This report assesses the relative potential impacts from the rezoning proposals, both on a site-by-site basis as well as cumulatively. The report begins with a maximum build-out analysis for each site under both current and proposed zoning scenarios, to establish a baseline for comparison. The build-out analysis recognizes that each site has existing development potential, which must be assessed against the change in development potential as contemplated in the rezoning pro-

posals. Understanding the impact of the proposed zoning ordinances lies in determining the **difference** between the existing development potential and the development potential under the proposed zoning.

1.2 STUDY AREA

The areas under consideration for rezoning consist of four individual sites within Ridgewood's CBD (see Figures 1 & 2), each of which was the subject of a separate developer proposal. For ease of discussion, three of the four rezoning areas are identified by the active developer proposal associated with them, with the area that is not subject to a current developer proposal (former Ken Smith site) identified by its former use.

1. **Chestnut Village Site:** vacant property on Chestnut Street east of the railroad tracks, opposite Robinson Lane. Previously proposed for a 52-unit rental multifamily complex.
2. **Former Ken Smith Site:** former auto dealership on Franklin Avenue between Chestnut Street and the railroad tracks. The subject area also includes several properties along Chestnut Street occupied by other uses. Previously proposed for a 114-unit multifamily apartment building and approximately 7,250 square feet of commercial and retail space. The developer proposal ("Ridgewood Station") was withdrawn in 2013.
3. **Dayton Site:** former Brogan Cadillac auto dealership on South Broad Street east of the railroad tracks, opposite Essex Street and Leroy Place. Previously proposed for a 107-unit luxury garden apartment complex.
4. **Enclave Site:** active office building, carpet store and auto body shop on North Maple Avenue between East Ridgewood and Franklin Avenues. Previously proposed for 52 apartment units and approximately 28,000 square feet of retail space. This site was also the location of a former Sealfons department store.

Each of these proposals contemplated a more intensive development than would be possible under the proposed rezoning. The Chestnut Village, Dayton and Enclave proposals each assumed approximately 42 units to the acre, while the Ridgewood Station project assumed about 53 units to the acre. This compares with the maximum residential density in the proposed zoning of 35 units to the acre. Therefore, although these developer proposals were reviewed to understand the market context in the Village, the build-out analysis contained in this report examines the reasonable and realistic maximum development potential under the proposed zoning, not any previously proposed development.

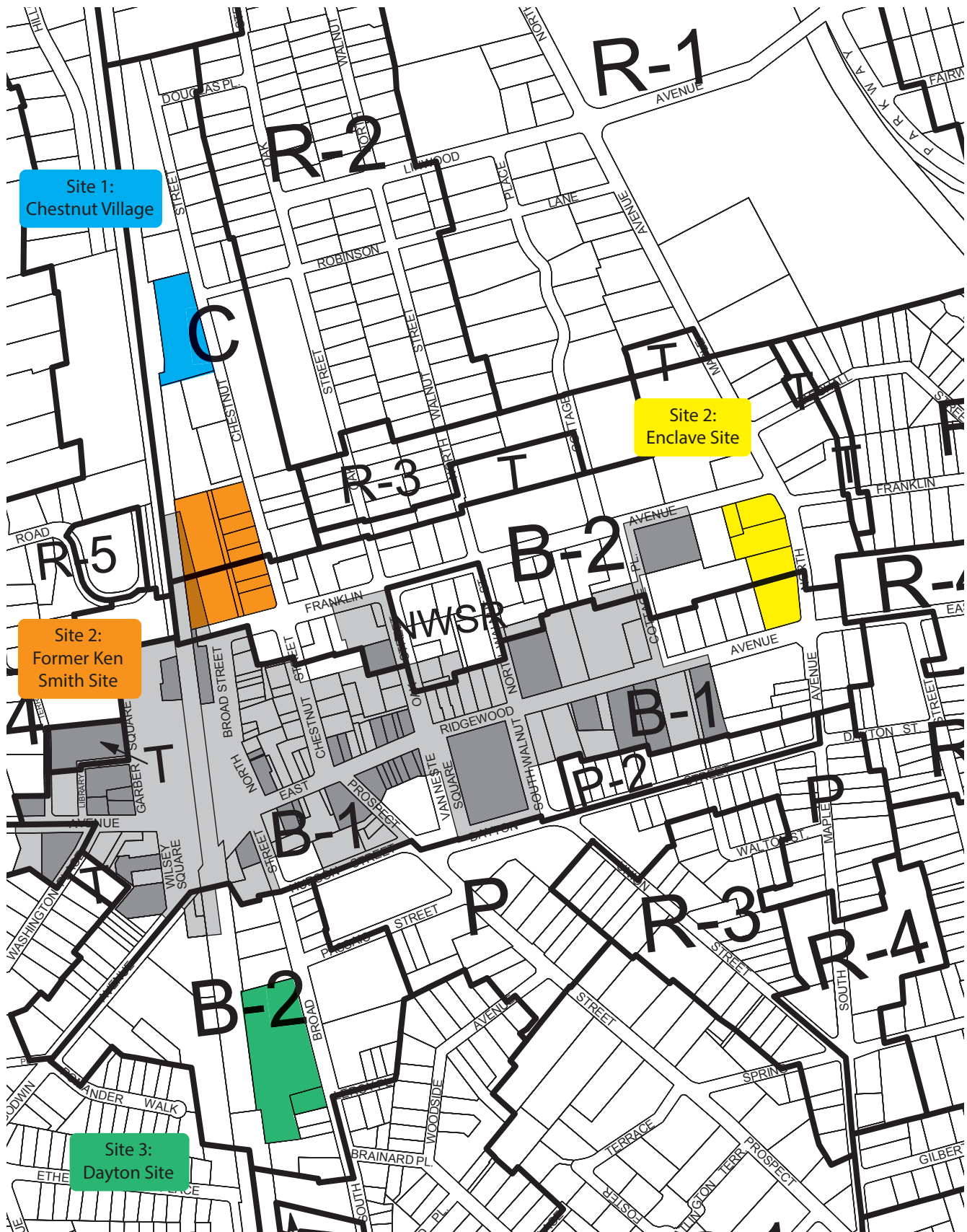


Figure 1: Existing Zoning

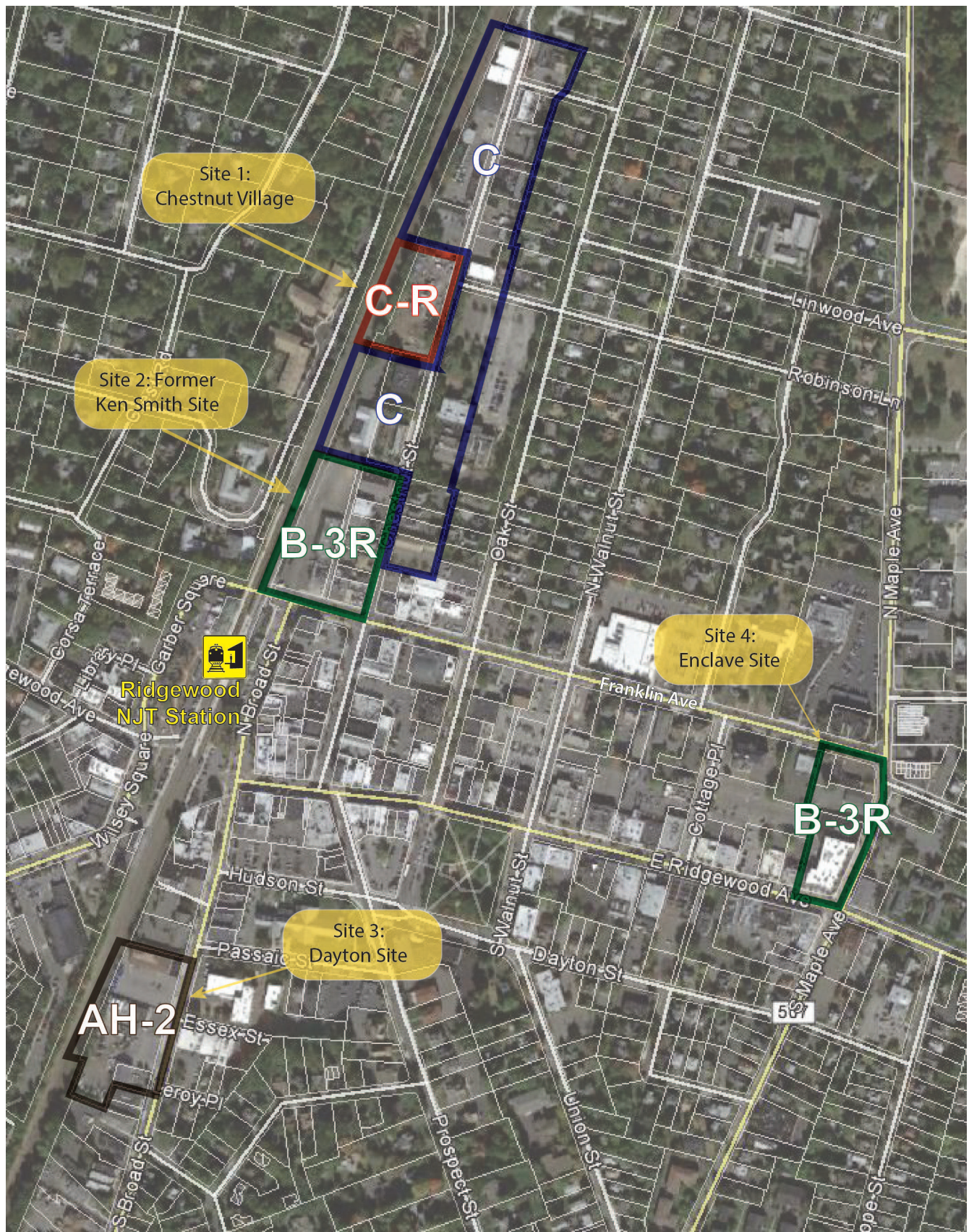


Figure 2: Potential Rezoning Areas

2.0 ALTERNATIVE DEVELOPMENT SCENARIOS

2.1 INTRODUCTION

As a first step of the Village's impacts analysis of proposed zoning changes in the Central Business District (CBD), the consultant team developed alternative "build-out" scenarios for the four proposed rezoning sites. A build-out analysis assesses the reasonable, realistic development potential development on vacant or underutilized land, based on current versus zoning. For each rezoning area, three alternative scenarios were examined:

- A. Build-out with non-residential uses under **existing** zoning;
- B. Build-out with mixed uses (non-residential and residential where allowed) under **existing** zoning; and
- C. Build-out with all residential or mixed use under **proposed** zoning.

These scenarios were developed on a site-by-site basis, based on the allowable uses under existing and proposed zoning, the site characteristics and recent development activity in downtown Ridgewood. Some of the rezoning areas represent more of a "blank slate" than others. For example, the Chestnut Village site is currently vacant, and the Dayton site contains a vacant former auto dealership and a car wash, both of which are assumed to be demolished in all development scenarios. However, for the former Ken Smith site and the Enclave site, some portion of the site is not under developer control and/or contains an active use that is not considered likely to be redeveloped. These portions of the two sites are presumed to remain in all development scenarios, and are therefore NOT included in any analysis.

For each rezoning area, a build-out analysis was completed to approximate the maximum buildable space for the three scenarios. The build-out reflects all of the applicable regulations under either current or proposed zoning, and assumes the following:

- Residential density is assumed to be the highest allowable: 12 units per acre for existing zoning, and 35 units per acre for proposed zoning. For the proposed zoning scenarios, this means that all units are rental, and a portion are set aside as affordable units.
- Floor area ratio (FAR) is assumed to be the highest allowable: 45% (for non-residential) and 60% (for residential) under existing zoning, and either 150% or 140% for proposed zoning. For all scenarios, this means that all units are rental, with a portion designated as afford-able as follows:
 - Existing zoning: 20% affordable to low- and moderate-income residents.
 - Proposed zoning: 15% affordable to low- and moderate-income residents.

- Residential parking requirements are based on the State of New Jersey’s Residential Site Improvement Standards (RSIS).
- No shared parking between complementary uses is assumed.
- Parking is assumed to be provided in surface lots, with no underground or structured parking. However, surface parking is “tucked under” or enclosed within buildings either to achieve greater efficiency in development, or to the extent needed to meet Ridgewood’s existing zoning requirement that at least one-third of residential parking be enclosed in a “garage.”
- Overall bedroom mix is assumed to be 45% one-bedroom, 50% two-bedroom and 5% three-bedroom. For affordable units, the mix was generated according to the existing zoning provisions:
 - The combination of studio/one-bedroom units is at least 10%, and no more than 20%, of the total low- and moderate-income units.
 - At least 30% of all low- and moderate-income units are two-bedroom units.
 - At least 30% of all low- and moderate-income units are three-bedroom units.
- The average dwelling unit size is 1,350 square feet, which includes common areas such as lobbies and hallways.
- The area devoted to each parking space is 350 square feet, which includes internal circulation and landscaping.

Each development alternative maximizes FAR and residential density (where allowed) but also conforms to all applicable zoning requirements (e.g. lot coverage, yard setbacks and parking). The alternatives for each of the four rezoning areas may be summarized in the following section.

2.2 SUMMARY OF ALTERNATIVE DEVELOPMENT SCENARIOS

Table 1 and Table 2 summarize the potential cumulative floor area (residential and non-residential) under each of the three development scenarios, along with a potential cumulative residential unit count.

Table 1: Summary of Alternative Development Scenarios

<i>Alternative</i>	<i>Alternative 1: (Existing zoning, all commercial)</i>	<i>Alternative 2: (Existing zoning, residential where allowed)</i>	<i>Alternative 3: (Proposed zoning, residential/mixed-use)</i>
<i>Total Floor Area (feet)</i>	120,697	166,435	362,593
<i>Non-residential Floor Area</i>	120,697	71,531	27,850
<i>Residential Floor Area</i>	0	94,900	334,743
<i>Residential Units</i>	0	70	247

Table 2: Build-Out Analysis for Potential Rezoning Areas

	Site 1 Chestnut Village	Site 2 Former Ken Smith Site	Site 3 Dayton Site	Site 4 Enclave Site	Total
Scenario A: Existing Zoning, Commercial Alternative					
Lot Area	53,425	94,850	110,000	50,326	308,601
Non-residential Area	24,041	31,016	44,000	21,640	120,697
Residential Area	0	0	0	0	0
Gross Floor Area	24,041	31,016	44,000	21,640	120,697
FAR	45%	33%	40%	43%	
Lot Coverage	69%	90%	90%	90%	
Residential Units	0	0	0	0	0
Residential Density	0	0	0	0	0
Scenario B: Existing Zoning, Mixed-Use Alternative					
Lot Area	53,425	94,850	110,000	50,326	308,601
Non-residential Area	20,034	15,000	25,000	11,500	71,534
Residential Area	0	35,275	40,909	18,716	94,900
Gross Floor Area	20,034	50,275	65,909	30,216	166,435
FAR	38%	53%	60%	60%	
Lot Coverage	90%	62%	81%	81%	
Residential Units	0	26	30	14	70
Residential Density	0	12	12	12	
Scenario C: Proposed Zoning, Residential/Mixed-Use Alternative					
Lot Area	53,425	94,850	110,000	50,326	308,601
Non-residential Area	0	18,250	0	9,600	27,850
Residential Area	57,951	102,885	119,318	54,589	334,743
Gross Floor Area	57,951	121,135	119,318	64,189	362,593
FAR	108%	128%	108%	128%	
Lot Coverage	69%	100%	69%	100%	
Residential Units	43	76	88	40	247
Residential Density	35	35	35	35	

Note: Numbers in red indicate the factors that limit increased development because they reach the maximum allowed within the zoning district regulations.

2.3 SITE 1: CHESTNUT VILLAGE

- **Total Land Area:** 53,425 sf
Potential redevelopment area is entirety of site shown below.
- **Existing Zoning:** C District
- **Proposed Zoning:** C-R District
- **Existing Land Use:** vacant/parking for construction vehicles.
- **1A: Existing Zoning, Office Alternative:** 2 stories of office (50% professional, 50% medical) over 1 story of parking, with associated surface parking.
- **1B: Existing Zoning, Retail Alternative:** 1 story of personal service/retail/exercise studio, etc., with associated surface parking.
- **1C: Proposed Zoning, Residential Alternative:** 3 stories of multifamily residential over 1 story of parking, with associated surface parking.

Potential Redevelopment Area



Existing Zoning /Area of Potential Rezoning

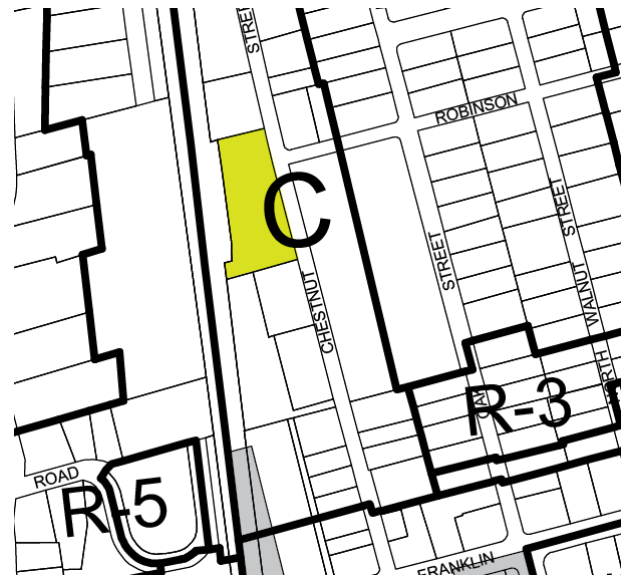


Table 3: Chestnut Village Site Build-Out Analysis

Scenario	Scenario 1A	Scenario 1B	Scenario 1C
	Existing Zoning	Existing Zoning	Proposed Zoning
	Commercial Alternative	Mixed-Use Alternative	Residential/Mixed-Use Alternative
	2 stories of office (50% professional, 50% medical) over 1 story of parking.	1 story of personal service/retail/exercise studio, etc.	3 stories of multifamily residential over 1 story of parking
Zoning	C	C	C-R
Bulk and Coverage			
Lot area	53,425	53,425	53,425
Building Coverage (%)	19.3%	37.5%	33.4%
Building Footprint (GSF)	10,318	20,034	17,831
Stories	3	1	4
FAR	0.45	0.38	1.08
Land Use			
Residential	0%	0%	100%
Non-residential	100%	100%	0%
Total Built Area (GSF)	24,041	20,034	57,951
Residential GSF	0	0	57,951
Non-residential GSF	24,041	20,034	0
Residential Units	0	0	43
Residential Density (Units/Acre)	0	0	35
Parking			
Required Parking Spaces	96	80	82
Required Parking Area	33,658	28,048	28,771
Required Covered Parking Area	N/A	N/A	9,590
Lot Coverage			
Lot Coverage (SF)	37,063	48,082	37,012
Lot Coverage (%)	69%	90%	69%

Numbers in red indicate the factors that limit increased development because they reach the maximum allowed within the zoning district regulations.

2.4 SITE 2: FORMER KEN SMITH SITE

- Total Land Area:** 126,350 sf
Potential Redevelopment Area: 94,850 sf (“L-shaped” portion of site, see figure below)
Area to Remain: 31,495 sf (The four parcels on the northeastern portion to remain developed as-is (office/residential)).
- Existing Zoning:** C, B-2 District
- Proposed Zoning:** B-3R District
- Existing Land Use:** The “L-shaped” portion fronting Ridgewood Avenue and railroad tracks is a former auto dealership (vacant buildings) and associated surface parking. Remaining portion along Chestnut Street is (south to north): a vacant commercial building (former yoga studio), 2-3 family residential, a frame shop with apartments above, an appliance store and an office building. The four parcels on the northeastern portion to remain developed as-is (office/residential).
- 2A: Existing Zoning, Commercial Alternative:** 1 story of retail/restaurant/personal service, etc., on “L-shaped” portion of site, with associated surface parking.
- 2B: Existing Zoning, Mixed-Use Alternative:** 2 stories of multifamily residential over 1 story of retail/restaurant/personal service, etc. and parking, with associated surface parking.
- 2C: Proposed Zoning, Residential/Mixed-Use Alternative:** 3 stories of multifamily residential over 1 story of retail/restaurant/personal service, etc. and parking, with associated surface parking.

Potential Redevelopment Area



Existing Zoning /Area of Potential Rezoning



Table 4: Former Ken Smith Site Build-Out Analysis

Scenario	Scenario 2A	Scenario 2B	Scenario 2C
	Existing Zoning	Existing Zoning	Proposed Zoning
	Commercial Alternative	Mixed-Use Alternative	Residential/Mixed-Use Alternative
	1 story of retail/restaurant/personal service, etc., on "L-shaped" portion of site. Four parcels on northeastern portion to remain developed as-is	2 stories of multifamily residential over 1 story of retail/restaurant/personal service and parking	3 stories of multifamily residential over 1 story of retail/restaurant/ personal service and parking
Zoning	C, B2	C, B2	B-3R
Bulk and Coverage			
Lot area	94,850	94,850	94,850
Building Coverage (%)	32.7%	21.9%	37.1%
Building Footprint (GSF)	31,016	20,809	35,230
Stories	1	3	4
FAR	0.33	0.53 *	1.28
Land Use			
Residential	0%	70%	85%
Non-residential	100%	30%	15%
Total Built Area (GSF)	31,016	50,275	121,135
Residential GSF	0	35,275	102,885
Non-residential GSF	31,016	15,000	18,250
Residential Units	0	26	76
Residential Density (Units/Acre)	0	12	35
Parking			
Required Parking Spaces	155	125	219
Required Parking Area	54,278	43,763	76,630
Required Covered Parking Area	N/A	5,809	16,980
Lot Coverage			
Lot Coverage (SF)	85,294	58,763	94,880
Lot Coverage (%)	90%	62%	100%

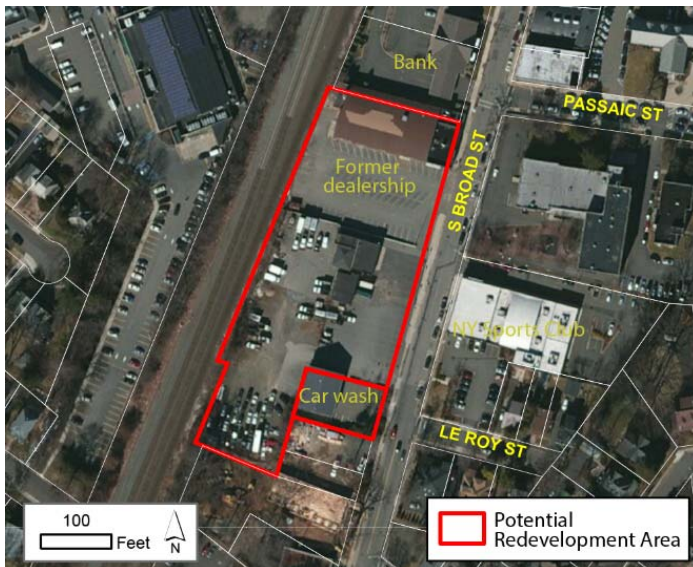
* - FAR is based on the proportion of the site in the C and B-2 zoning districts

Numbers in red indicate the factors that limit increased development because they reach the maximum allowed within the zoning district regulations.

2.5 SITE 3: DAYTON SITE

- **Lot Area:** 110,000 sf
Potential redevelopment area is entirety of site shown below.
- **Existing Zoning:** B-2 District
- **Proposed Zoning:** AH-2 District
- **Existing Land Use:** The northern portion is a former auto dealership (vacant building) with associated surface parking currently being leased for vehicle storage. The southern portion is a car wash.
- **3A: Existing Zoning, Commercial Alternative:** Two buildings: a 1-story retail (e.g. CVS) at the northern portion and a 2-story medical office at the southern portion.
- **3B: Existing Zoning, Mixed-Use Alternative:** 2 stories of multifamily residential over 1 story of retail/restaurant/personal service, etc. and parking, with associated surface parking.
- **3C: Proposed Zoning, Residential/Mixed-Use Alternative:** 3 stories of multifamily residential over 1 story of parking, with associated surface parking.

Potential Redevelopment Area



Existing Zoning /Area of Potential Rezoning

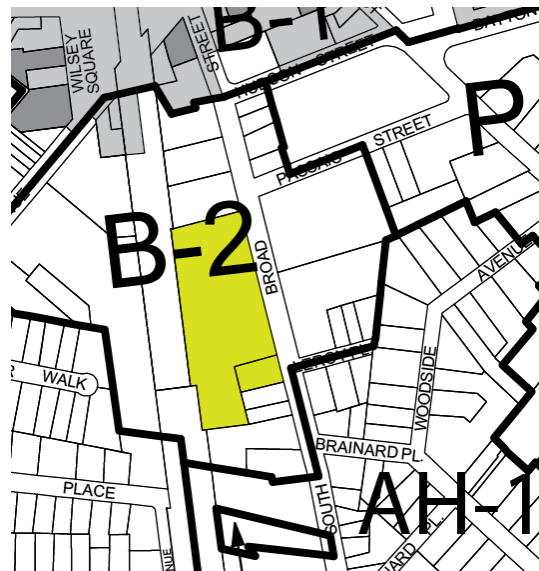


Table 5: Dayton Site Build-Out Analysis

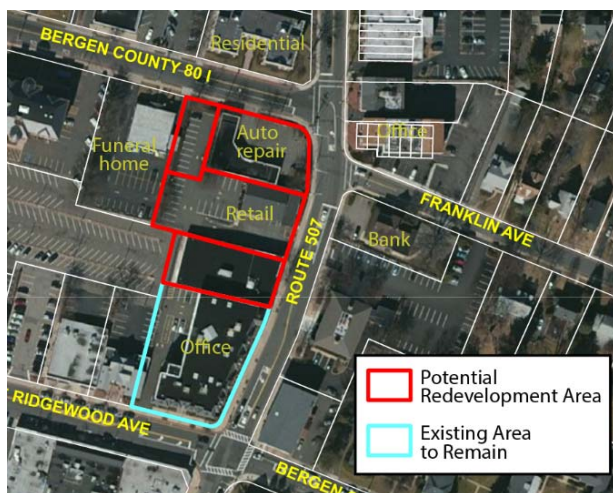
Scenario	<u>Scenario 3A</u>	<u>Scenario 3B</u>	<u>Scenario 3C</u>
	Existing Zoning	Existing Zoning	Proposed Zoning
	Commercial Alternative	Mixed-Use Alternative	Residential/Mixed-Use Alternative
	Two buildings: a 1-story retail (e.g. CVS) at northern portion and a 2-story medical office at southern portion.	2 stories of multifamily residential over 1 story of retail/restaurant/personal service and parking.	3 stories of multifamily residential over 1 story of parking
Zoning	B-2	B-2	AH-2
Bulk and Coverage			
Lot area	110,000	110,000	110,000
Building Coverage (%)	20.0%	28.8%	33.4%
Building Footprint (GSF)	22,000	31,703	36,713
Stories	1.5	3	4
FAR	0.40	0.60	1.08
Land Use			
Residential	0%	62%	100%
Non-residential	100%	38%	0%
Total Built Area (GSF)	44,000	65,909	119,318
Residential GSF	0	40,909	119,318
Non-residential GSF	44,000	25,000	0
Residential Units	0	30	88
Residential Density (Units/Acre)	0	12	35
Parking			
Required Parking Spaces	220	183	169
Required Parking Area	77,000	64,061	59,239
Required Covered Parking Area	N/A	6,703	19,746
Lot Coverage			
Lot Coverage (SF)	99,000	89,061	76,206
Lot Coverage (%)	90%	81%	69%

Numbers in red indicate the factors that limit increased development because they reach the maximum allowed within the zoning district regulations.

2.6 SITE 4: ENCLAVE SITE

- Total Land Area:** 77,622 sf
Potential Redevelopment Area: 50,326 sf (The portion of the site with the single-story office use, flooring company and auto repair shop - see figure below).
Area to Remain: 27,296 sf (The southern portion is anticipated to remain as-is, with an office building containing primarily real estate/financial office uses.
- Existing Zoning:** B-2 District
- Proposed Zoning:** B-3R District
- Existing Land Use:** The southern portion is an office building containing primarily real estate/financial office uses, with parking to the rear and enclosed within the building. The remainder of the site is a flooring company and an auto repair shop.
- 4A: Existing Zoning, Commercial Alternative:** 3 stories of office (75% professional and 25% medical) for the northern portion of the site (Brake-o-Rama, Hallmark Floor Co. and single-story portion of the existing office building), with associated surface parking.
- 4B: Existing Zoning, Mixed-Use Alternative:** 2 stories of multifamily residential over 1 story of retail/restaurant/personal service, etc. and parking fronting Ridgewood Avenue, with associated surface parking.
- 4C: Proposed Zoning, Residential/Mixed-Use Alternative:** 3 stories of multifamily residential over 1 story of retail/restaurant/personal service, etc. and parking, with associated surface parking.

Potential Redevelopment Area



Existing Zoning /Area of Potential Rezoning

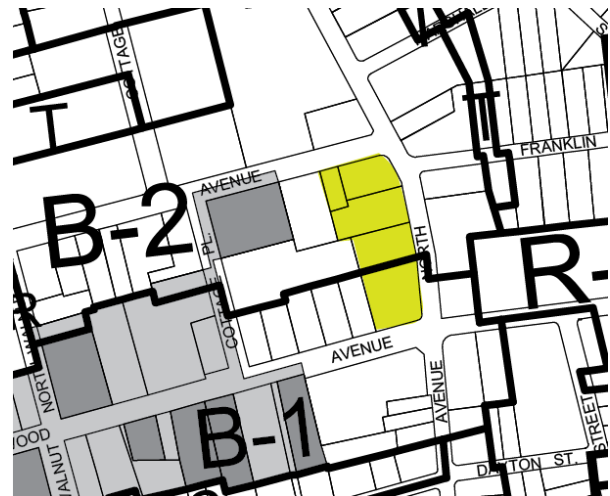


Table 6: Enclave Site Build-Out Analysis

Scenario	Scenario 4A	Scenario 4B	Scenario 4C
	Existing Zoning Commercial Alternative 3 stories of office (75% professional and 25% medical) for northern portion of site. Southern portion of site to remain developed as office.	Existing Zoning Mixed-Use Alternative 2 stories of multifamily residential over 1 story of retail/restaurant/personal service and parking fronting Ridgewood Avenue,	Proposed Zoning Residential/Mixed-Use Alternative 3 stories of multifamily residential over 1 story of retail/restaurant/personal service and parking
Zoning	B-2	B-2	B-3R
Bulk and Coverage			
Lot area	50,326	50,326	50,326
Building Coverage (%)	14.3%	29.5%	38.2%
Building Footprint (GSF)	7,213	14,851	19,207
Stories	3	3	4
FAR	0.43	0.60	1.28
Land Use			
Residential	0%	62%	85%
Non-residential	100%	38%	15%
Total Built Area (GSF)	21,640	30,216	64,189
Residential GSF	0	18,716	54,589
Non-residential GSF	21,640	11,500	9,600
Residential Units	0	14	40
Residential Density (Units/Acre)	0	12	35
Parking			
Required Parking Spaces	108	84	116
Required Parking Area	37,870	29,417	40,543
Required Covered Parking Area	N/A	3,351	9,607
Lot Coverage			
Lot Coverage (SF)	45,084	40,917	50,143
Lot Coverage (%)	90%	81%	100%

Numbers in red indicate the factors that limit increased development because they reach the maximum allowed within the zoning district regulations.

2.7 BUILD-OUT ASSUMPTIONS

Table 7: Zoning Requirements Used for Build-Out Assumptions

	Existing Zoning		Proposed Zoning		
	C	B-2	C-R	B-3R	AH-2
Max Height (Feet)	45	45	50	50	50
Yards and Setbacks					
Front Yard	5	0	15	15	15
Side Yard	0	0	0	0	12' or 1/2 height of building
Rear Yard	10	10	0	0	12' or 1/2 height of building
Setback from RR property	0	0	25	25	25
FAR	45%	45%	150%	150%	140%
Affordable (own)			140%	140%	130%
Affordable (rent)			145%	145%	135%
Affordable (rent, low income)		60%	150%	150%	140%
Coverage	90%	90%	95%	100%	90%
Affordable (own)			90%	90%	80%
Affordable (rent)			93%	95%	85%
Affordable (rent, low income)			95%	100%	90%
Residential Density		12	35	35	35
Max Residential %		66%			
Max residential Density (DU/Acre)		12	30	30	30
Max Density with affordable			35	35	35
Parking Requirements					
Non-residential (SF/Space)	250	200	250	250	250
Residential - 1BR	1.8	1.8	1.8	1.8	1.8
Residential - 2BR	2	2	2	2	2
Residential - 3BR	2.1	2.1	2.1	2.1	2.1

Table 8: Other Assumptions Used in Build-Out Analysis

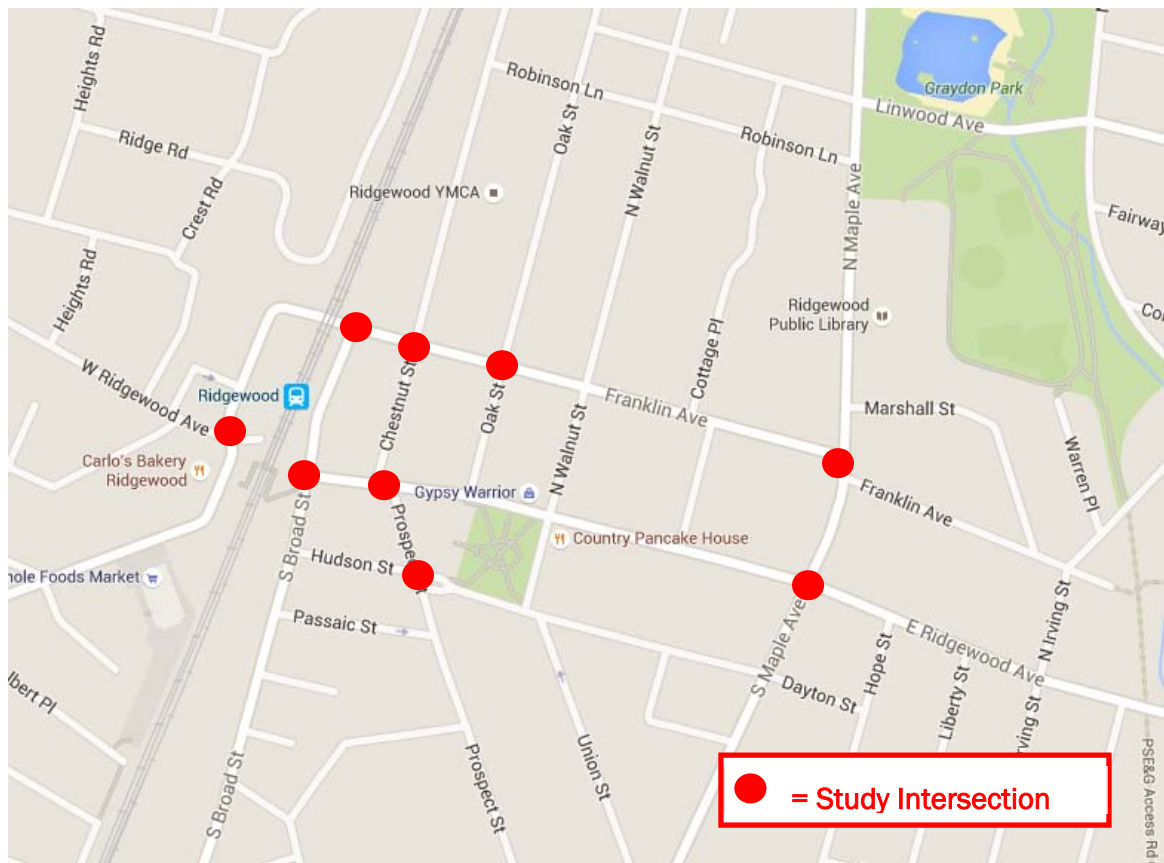
<u>Parking Requirement Assumptions</u>	<u>Requirement</u>	<u>Source</u>
Average DU Size	1350 SF	See property mix below
<u>Housing Mix</u>		
Type	<u>1BR</u>	<u>2BR</u>
Mix	45%	50%
		<u>3BR</u>
		5%
		<u>Total</u>
		100%
Average Parking Requirement	1.915	
SF per parking spot	350 SF	
Covered Parking Area %	33% of residential spaces	

3.0 TRAFFIC IMPACTS

3.1 OVERVIEW

To assess the traffic impacts of the proposed rezoning, the trip making characteristics of each development type were established, baseline future traffic conditions were forecast, and traffic analysis was conducted for various critical intersections, which are shown in Figure 3, below.

Figure 3: Location of Project Intersections



Source: Google Maps

The intersections represented represent the confluence of critical turning movement locations for the four redevelopment sites under review and critical locations in Downtown Ridgewood. The specific intersections studied were the following locations:

- West Ridgewood Avenue and Garber Square/Wilsey Square (signalized)
- Franklin Avenue/Garber Square and North Broad Street (signalized)

- Franklin Avenue and Chestnut Street (unsignalized)
- Franklin Avenue and Oak Street (signalized)
- Franklin Avenue and North Maple Avenue (signalized)
- Ridgewood Avenue and Maple Avenue (signalized)
- Ridgewood Avenue and Chestnut Street/Prospect Street (unsignalized)
- Ridgewood Avenue and Broad Street (unsignalized)
- Prospect Street and Hudson Street/Dayton Street (unsignalized)

The various signalized intersections cited above operate under pre-timed traffic control (i.e. not actuated by pedestrians or traffic).

3.2 PROJECTED TRAFFIC FOR REDEVELOPMENT SITES

Trip generation for the various development scenarios included within this study were forecast using the ITE Trip Generation Manual, 9th Edition, as well as the ITE Trip Generation Handbook, 2nd Edition, based on the potential uses in question. Both sources represent a compilation of data on trip generation from actual sites, and on typical pass-by traffic rates (i.e. traffic that is already on the road system that diverts to retail establishments) associated with retail uses. It should be noted that data contained in these documents are typically representative of suburban locations with limited transit access. Accordingly, it is appropriate to adjust rates for actual field conditions.

In order to estimate vehicle trips for apartment units, it was necessary to adjust for trips by transit and walking, given the proximity of the development proposals to the Ridgewood train station and the walkable downtown environment. Using the 2014 American Community Survey, we compared means of transportation to work for residents of all of Ridgewood and the Census Tract containing the downtown area to a more suburban community with similar population, but with no train service and less walkability. In this case, we selected Livingston, New Jersey, for comparison. Table 9 contains a comparison of commuting behavior. Based on this information, a reduction of 20% was selected for residential trips during the weekday morning and evening peak hours for transit and walking use. No reductions were applied to Saturday Trip Generation.

Table 9: Means of Transportation to Work

	Ridge wood, NJ		Downtown Ridge wood Census Tract		Livingston, NJ	
Travel Mode	Number	Percent	Number	Percent	Number	Percent
Drove Alone	6,754	67%	1,511	66%	10,835	83%
Car Pooled	484	5%	108	5%	850	7%
Public Transportation	2,197	22%	366	16%	1,173	9%
Walked	443	4%	278	12%	100	1%
Other	194	2%	34	1%	38	0%
Total	10,072	100%	2,297	100%	12,996	100%

Source: 2014 American Community Survey

Note: Excludes worked at home.

In order to account for the fact that retail developments are proposed to be located within a walkable downtown in a mixed use environment, it was decided that the passby rates applied for suburban locations would be used to account for linked trips to other retail, residents that do not drive to retail and restaurants, and transit commuters rather than to automobile trips.

Table 10 summarizes the trip generation estimates for each development scenario for each redevelopment area, along with the expected increase in vehicle trips for each scenario. As shown, the proposed redevelopment produces far fewer new trips versus both highest and best use development under current zoning scenarios.

Table 10: Vehicle Trips for Each Development Scenario

Period	Site	Existing	Scenario A: Existing Zoning, all commercial		Scenario B: Existing Zoning, mixed use		Scenario C: Proposed Zoning, residential/ mixed use	
			Trips	Change	Trips	Change	Trips	Change
Weekday	1: Chestnut Village	0	50	+50	55	+55	19	+19
Morning	2: Former Ken Smith Site	19	85	+66	58	+39	86	+67
Peak	3: Dayton Site	54	117	+63	77	+23	39	-15
Hour	4: Enclave Site	25	41	+16	47	+22	54	+29
	Total	98	293	+195	237	+139	198	+100
Weekday	1: Chestnut Village	0	62	+62	79	+79	23	+23
Evening	2: Former Ken Smith Site	21	152	+131	69	+48	112	+91
Peak	3: Dayton Site	59	151	+92	118	+59	55	-4
Hour	4: Enclave Site	44	48	+4	49	+5	51	+7
	Total	124	413	+289	315	+191	241	+117
Saturday	1: Chestnut Village	0	50	+50	192	+192	24	+24
Midday	2: Former Ken Smith Site	18	274	+256	175	+157	233	+215
Peak	3: Dayton Site	42	262	+220	239	+197	56	+14
Hour	4: Enclave Site	33	29	-4	143	+110	142	+109
	Total	93	615	+522	749	+656	455	+362

Source: RBA Group, 2016

Trip distribution was estimated using the Census Journey to Work survey and area traffic volumes. Table 11 summarizes the trip distribution assumptions used in assigning trips from each development.

Table 11: Trip Distribution

Direction to/from	Residential Traffic	Office Traffic	Retail or Medical Traffic
West	8%	10%	25%
North	20%	20%	25%
South	8%	10%	25%
East	64%	60%	25%
Total	100%	100%	100%

Source: RBA Group, 2016

3.3 BASELINE TRAFFIC CONDITIONS

To establish baseline traffic volumes, turning movement counts were conducted at all study area intersections on weekdays and a Saturday. Traffic data collection was conducted using Video Imaging technology (MioVision). Multiple weekdays were recorded to verify that the data collection represented typical conditions. The days selected for analysis were Tuesday, February 2, 2016, and Saturday, January 30, 2016. On Saturday, January 30, 2016, there was a watermain break at the intersection of Ridgewood Avenue and Chestnut Street/Prospect Street that resulted in some traffic being diverted into North Broad Street. Given the low volume for the movement in question, it was decided that assuming the traffic to be on North Broad Street would be appropriately conservative. Otherwise, nothing appeared to interfere with traffic counts. Counts were found to be consistent with historic counts as well. Traffic volumes tend to be highest on Saturday.

All traffic counts included pedestrian and bicycle counts as well as vehicles. Pedestrian volumes were included in later analysis. Given the time of the year, and the fact that the various development proposals include residential and retail, all morning peak pedestrian flows were expanded by 50% and all evening and Saturday midday peak pedestrian flows were expanded by 100%, in order to have appropriately conservative analysis.



LEGEND
MORNING (7:45-8:45 AM) / EVENING (4:45-5:45 PM) / SATURDAY MIDDAY (11:45 AM-12:45 PM) PEAK HOUR TRAFFIC VOLUMES

Figure 4: Existing Traffic Volumes

Baseline counts were adjusted for three factors:

- The directions of Hudson Street and Passaic Street will be reversed in the near future as part of the proposed Parking Garage on Hudson Street
- A 325-space parking garage will be constructed on Hudson Street over an existing 76-space surface lot.
- Traffic growth from new developments not specifically downtown were accounted for by expanding traffic volumes on all collector roads by 1% per year for five years, in accordance with guidance provided by the New Jersey Department of Transportation.

Figure 4 contains the baseline traffic volumes. The traffic changes from the above three considerations were combined with traffic from each of the three development scenarios to determine build volumes. Figures 5 to 7 contain these volumes for Development Scenarios A, B, and C, respectively.

3.4 TRAFFIC OPERATIONAL ANALYSIS

Level of Service analysis for the various intersections under study were conducted for the weekday morning and evening peak hours utilizing the methods outlined in the *Highway Capacity Manual, 2000 Edition*, published by the Transportation Research Board, using the program Synchro, version 7 (using Highway Capacity Manual methodology). With this analysis, Level of Service (LOS) is expressed on a scale ranging from “A” to “F”, with “A” being best and “F” being worst. Level of Service is determined by the average delay per vehicle for a specific approach or lane group during the peak hour. For signalized intersections, LOS F refers to an average delay in excess of 80 seconds. For the area in question, it is not uncommon for left turns and side streets to operate at LOS F during peak hours, so long as the delay does not greatly exceed 80 seconds per hour. For unsignalized intersections, delays for equivalent levels of service are lower, as drivers tend to perceive delay differently at stop-controlled locations versus traffic signals. For stop-controlled intersections, Level of Service F occurs when delay exceeds 50 seconds per vehicle. For urbanized areas in peak hours, Level of Service D is generally considered the appropriate design standard, whereas Level of Service C is a more appropriate design standard for more suburban developments. This was used as the basis of determining whether an alternative functioned adequately or not. Table 12, below summarizes the level of service results based on the worst, or critical movement or combination of movements if from a shared lane (known as lane group). This was summarized to ease in the evaluation of the alternatives. Note that the critical movement is not the same in each peak hour. It should be noted that delay was calibrated based on driver behavior in Ridgewood for unsignalized locations.



Figure 5: 2021 Build Volumes for Scenario A



LEGEND
MORNING (7:45-8:45 AM) / EVENING (4:45-5:45 PM) / SATURDAY MIDDAY (11:45 AM-12:45 PM) PEAK HOUR TRAFFIC VOLUMES

Figure 6: 2021 Build Volumes for Scenario B



Figure 7: 2021 Build Volumes for Scenario C

Table 12: Level of Service Results

Intersection	Peak Hour	Baseline		Scenario A		Scenario B		Scenario C	
		No changes to existing land uses, includes deck		Existing Zoning, all commercial		Existing Zoning, mixed use		Proposed Zoning, residential/ mixed use	
		LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay
W Ridgewood Av & Garber Sq/Wilsey Sq (signalized)	Morning Peak Hour	C	28.3	C	29.5	C	29.3	C	30.7
	Evening Peak Hour	B	18.6	B	19.8	B	19.8	B	19.0
	Saturday Peak Hour	C	20.2	C	25.4	C	23.5	C	22.4
Franklin Av/Garber Sq & N Broad St (signalized)	Morning Peak Hour	B	19.9	C	21.0	C	20.8	C	20.8
	Evening Peak Hour	C	25.7	C	29.6	C	26.7	C	26.7
	Saturday Peak Hour	C	25.2	D	53.3	C	32.2	C	32.2
Franklin Av & Oak St (signalized)	Morning Peak Hour	B	18.8	B	18.8	B	18.6	B	18.2
	Evening Peak Hour	B	19.9	C	22.6	C	20.3	C	20.3
	Saturday Peak Hour	C	21.8	C	23.7	C	24.1	C	23.5
Franklin Av & N Maple Av (signalized)	Morning Peak Hour	D	39.1	D	39.0	D	39.0	D	37.6
	Evening Peak Hour	D	43.4	D	44.5	D	44.0	D	43.2
	Saturday Peak Hour	E	56.0	E	64.4	E	71.0	E	63.6
Ridgewood Av & Maple Av (signalized)	Morning Peak Hour	C	21.5	C	22.0	C	22.0	C	22.5
	Evening Peak Hour	C	21.6	C	22.8	C	22.3	C	22.2
	Saturday Peak Hour	C	23.0	C	28.1	C	28.8	C	27.4
Franklin Av & Chestnut St (unsignalized) - worst side street	Morning Peak Hour	C	21.4	C	17.0	C	16.8	C	16.3
	Evening Peak Hour	D	31.2	E	45.2	E	41.4	E	35.7
	Saturday Peak Hour	E	47.6	F	125.7	F	*	F	78.0
Ridgewood Av & Chestnut St / Prospect St (unsignalized) - worst side street	Morning Peak Hour	B	10.8	B	11.0	B	11.1	B	11.3
	Evening Peak Hour	B	13.1	B	13.7	B	13.4	B	13.4
	Saturday Peak Hour	C	17.9	C	20.0	C	22.1	C	17.9
Ridgewood Av & Broad St (unsignalized) - based on side street	Morning Peak Hour	C	17.2	C	18.4	C	18.1	C	18.6
	Evening Peak Hour	C	22.5	D	33.2	D	28.1	D	28.2
	Saturday Peak Hour	F	170.2	F	*	F	*	F	*
Prospect St & Dayton St / Hudson St (unsignalized) - worst side street	Morning Peak Hour	C	15.2	C	15.9	C	15.6	C	15.3
	Evening Peak Hour	C	18.5	C	21.5	C	20.0	C	18.8
	Saturday Peak Hour	C	19.3	C	24.9	C	23.8	C	20.2
LOS = Level of Service (A through F, A being best and F being worst)									
Delay = Average Delay per Vehicle in Seconds in the worst 15 minutes of the peak hour.									
* = excessive delay that can not be accurately measured									

Source: RBA Group, 2016

Table 12 shows that the proposed rezoning provides less exacerbation of several problem locations than either development scenario under existing zoning. A summary of the most critical traffic issues are as follows:

- **Franklin Avenue/Garber Square and North Broad Street** – The heavy northbound left turn movement will suffer due to increased activity on the northern driveway, and the delay for this movement is expected to increase. The delays will be worse in Scenarios A and B. For all scenarios, it was assumed that the development would include a separate left-turn lane and through-right turn at the driveway exit. Adding a northbound lead left turn arrow could mitigate this impact, and improve traffic conditions adequately.
- **Franklin Avenue and Chestnut Street** - Operations at this stop-controlled intersection are impacted by stacking for closely spaced traffic signals in either direction. This location would be impacted by any new development on the sites under consideration, but most especially the Chestnut Street site. Scenarios A and B will result in worse impacts at this location. To improve operations at this location, consideration can be given to modifying Chestnut Street such that only right turns would be permitted out of it, in a manner similar to Ridgewood Avenue and Chestnut Street/Prospect Street. Left-turn and through movements can be accommodated via the signalized intersections at Franklin Avenue and Oak Street from the north and Franklin Avenue/Garber Square and South Broad Street from the south. This would improve traffic operations to an acceptable Level of Service D or better.
- **Franklin Avenue and North Maple Avenue** – This intersection has limited capacity, due to the offset to Franklin Avenue that forces traffic from each leg of Franklin Avenue to proceed separately. Any development of the properties in question will impact this location. To address the situation, the intersection could be upgraded to actuate the eastern leg of Franklin Avenue only in the event of a vehicle activation, in order to reduce unnecessary delay. That would reduce overall delay by 5-10 seconds per vehicle on average, and would provide additional capacity. Pedestrian signal heads would be an appropriate addition to this intersection as well.
- **Ridgewood Avenue and Broad Street** – A review of the video for this intersection indicates that it functions adequately today, because traffic on Broad Street often does not respect the stop sign and rolls through the intersection. As indicated in the above analysis, operations from new development are expected to cause congestion on Saturday midday peak hours (weekday commuting periods will remain at generally acceptable levels of service). Police traffic control on weekends would be one consideration for this location, as would be all-way stop control.

3.5 PEDESTRIAN CONSIDERATIONS

Pedestrian flows were found to be quite high in the vicinity of the train station. During weekdays, 50-100 pedestrians per hour were counted in key crosswalks, and 150-200 pedestrians per hour were observed on Saturday midday. As noted above, a higher value was used in traffic analysis, to account for the fact that counts were in winter and to accommodate pedestrian increases from the developments under consideration. Other than the conflict between pedestrians and turning

vehicles at intersections, no specific pedestrian impediments were noted, assuming that sidewalks are considered during the site plan review process. The only exception may be the intersection of Ridgewood Avenue and Broad Street, where the pedestrian volume that crosses east-west traffic is high.

3.6 CONCLUSIONS

The proposed rezoning will produce less traffic than could occur under existing zoning. Consequently, the proposed rezoning has less impact on the four traffic pressure points identified in analysis. We have recommended a series of fixes for all locations that have issues, as indicated above. Fair share contributions for said improvements could be gathered by new developments.

4.0 RIDGEWOOD SCHOOL DISTRICT IMPACTS

The purpose of this analysis is to determine the impact that the proposed residential construction in Ridgewood Village will have on the enrollment in the public schools. This study will also provide an estimate of the total number of occupants to reside in these homes once they are fully built out. The following steps were followed in order to complete this analysis:

1. Calculating the total number of units proposed for each site. This included distribution based upon rental units which were both market-rate and affordable.
2. Estimating the total number of occupants which would, at full build-out, be yielded by these new residential units both for existing and proposed zoning. Calculations based upon COAH requirements with adjustments for market-rate units.
3. Calculating student yield per household by unit type (market-rate or affordable) and by bedroom count.
4. Projecting enrollment for the entire Ridgewood Public School District and for the individual schools, which might be impacted by these developments.

4.1 BACKGROUND

In the late summer and fall of 2015, Ross Haber and Associates provided the Ridgewood Public Schools with an enrollment projection and facility utilization study. The purpose of the study was to help the Ridgewood Board of Education decide if it was feasible to implement a full day kindergarten program. The District currently only offers a half-day (morning and afternoon) kindergarten program. The kindergarten through fifth grade (K-5) enrollment had shown an approximate 7% decline between the 2010-11 and the 2015-16 school years. In addition each of the six elementary schools had shown some degree of enrollment decline.

Table 13, below, shows the enrollment change for each of the elementary schools. The objective of this study was to determine if this enrollment change would free up enough space in each of the elementary school to provide enough classroom space for an increase of approximately seven (7) sections of kindergarten classes. In addition this study also determined that in order to implement a full-day kindergarten program there would be budgetary implications. These would primarily be for the cost of seven additional teachers and three classroom aides.

Table 13 also shows that the overall enrollment in the Ridgewood Public Schools had declined by approximately 1.8% between 2010-11 and 2015. The projection indicates that the enrollment will decline by approximately 3.1% by 2020-21. The numbers in bold indicate the total decrease in elementary school enrollment.

The projections were then compared to the current classroom availability in each school building. After careful analysis by each principal as well as by the District administration it was determined that with some changes in programs, restructuring of some divided classrooms and changes in

program and service location in each building that it would be possible to implement a full day kindergarten program.

Table 13: Summary of District-Wide and Elementary School Enrollment History and Projections

School	2010-11	2015-16	Change		2020-21	Change	
			#	%		#	%
District	5,753	5,648	-105	-1.83%	5,473	-175	-3.10%
Hawes	408	406	-2	-0.49%	435	29	7.14%
Orchard	343	303	-40	-11.66%	283	-20	-6.60%
Ridge	496	453	-43	-8.67%	441	-12	-2.65%
Somerville	524	430	-94	-17.9%	401	-29	-6.74%
Travell	405	383	-22	-5.43%	380	-3	-0.78%
Willard	489	499	10	2.04%	486	-13	-2.61%

Source: Ross Haber & Associates, 2015

At the time that this study was done, it was the general consensus that these developments were either not going forward or that they would be far enough into the future as to not be a consideration for the School District Study.¹ Further, based upon prior estimates, it was also believed that at full build-out these developments would add no more than 50 students to the District.

With the possibility of these new residential developments actually being built becoming more evident, it became essential to re-evaluate the impact of the developments on the schools. The initial estimate of 50 students was based upon the 2006 study done by Rutgers University regarding student yields. This study is, for the most part, out of date and does not comport with the actual yields from like developments based upon current household counts. The purpose of this study was to update those student yields (estimates of how many students come from each home based upon size of home and level of affordability).

This study will show how this update in student yields will impact the enrollment projected for the Ridgewood Public Schools.

¹ Study done for the Ridgewood Public Schools–November, 2015.

4.2 UNIT CALCULATIONS

Table 14: Unit Distribution

Type	Percentage	Affordable Multiplier
Studio/One Bedroom	45%	0.2
Two Bedroom	50%	0.3
Three Bedroom	5%	0.2

Source: Ross Haber & Associates, 2016

Table 14 shows the distribution of all units based upon Ridgewood requirements.² The affordable unit column indicates the distribution of apartments by bedroom count for affordable units. The total number of units allocated low-moderate income was calculated for the following scenarios at 15% of the total units for proposed zoning (C Scenario) and 20% of the total units for the existing zoning (B Scenario).

A. Distribution of Units for Proposed Sites (Scenarios 1C - 4C)

Tables 15-18 show the total number of units for each scenario, the split between market-rate units and affordable units and the distribution of units by bedroom count. The affordable units are split 50/50 for each bedroom count. Where there is an odd bedroom count, the larger number is allocated to low income.

Table 15: Chestnut Village Site, Scenario 1C

		Bedrooms			
		0-1	2	3	Total
Total Units	43				
Market-Rate	36	16	19	0	35
Affordable	7	2	3	3	8
	Total				43
Moderate (50%)		1	1	1	
Low-Income (50%)		1	2	2	
	Total	18	22	3	

Source: Ross Haber & Associates, 2016

² See the assumptions in Section 2

Table 16: Former Ken Smith Site, Scenario 2C

Bedrooms					
Total Units	76	0-1	2	3	Total
Market-Rate	64	30	34	0	64
Affordable	12	3	5	4	12
Total					76
Moderate (50%)		1	2	2	
Low-Income (50%)		2	3	2	
Total		33	39	4	76

Source: Ross Haber & Associates, 2016

Table 17: Dayton Site, Scenario 3C

Bedrooms					
Total Units	88	0-1	2	3	Total
Market-Rate	75	36	39	0	75
Affordable	13	3	5	5	13
Total					88
Moderate (50%)		2	3	2	
Low-Income (50%)		1	3	3	
Total		39	44	5	88

Source: Ross Haber & Associates, 2016

Table 18: Enclave Site, Scenario 4C

Bedrooms					
Total Units	40	0-1	2	3	Total
Market-Rate	34	16	18	0	34
Affordable	6	1	2	3	6
Total					40
Moderate (50%)		0	1	1	
Low-Income (50%)		1	1	2	
Total		17	20	3	40

Source: Ross Haber & Associates, 2016

B. Distribution of Units for Existing Sites (Scenarios 2B – 4B) ³

Tables 19-21 show the distribution of units under the existing plan. The percentages used for this distribution are the same as for the proposed sites, except that the set-aside for affordable units is 20%, as consistent with current zoning.

Table 19: Former Ken Smith Site, Scenario 2B

		Bedrooms			
Total Units	26	0-1	2	3	Total
Market-Rate	21	9	12	0	21
Affordable	5	1	3	1	5
Total					26
Moderate (50%)		1	1	0	
Low-Income (50%)		0	2	1	
Total		10	15	1	26

Source: Ross Haber & Associates, 2016

Table 20: Dayton Site, Scenario 3B

		Bedrooms			
Total Units	30	0-1	2	3	Total
Market-Rate	24	11	13	0	24
Affordable	6	3	2	1	6
Total					30
Moderate (50%)		1	1	0	
Low-Income (50%)		1	2	1	
Total		14	15	1	30

Source: Ross Haber & Associates, 2016

³ There are no residential units for Chestnut Village under Existing Sites.

Table 21: Enclave Site, Scenario 4B

		Bedrooms			
Total Units	12	0-1	2	3	Total
Market-Rate	10	4	6	0	10
Affordable	2	0	1	1	2
Total					12
Moderate (50%)		0	1	0	
Low-Income (50%)		0	0	1	
Total		4	7	1	12

Source: Ross Haber & Associates, 2016

4.3 ESTIMATING TOTAL OCCUPANCY FOR ALL PROPOSED UNITS

This section estimates the total number of occupants for each of the scenarios. The yield factors were based upon the number of units by bedroom size as defined under the Uniform Housing Affordability Control, Section 5:93-74 Establishing Rents and prices of units. Yield factors for the units are as follows:

1. Efficiency units (assume studios): 1 person
2. One bedroom apartments: 1.5 persons
3. Two bedroom apartments: 3 persons
4. Three bedroom apartments: 4.5 persons

These occupancy rates were used for both market rate and affordable units. The final calculation indicated that the average occupancy rate (all bedroom sizes) was projected to be 2.91 occupants per unit for affordable housing and 2.19 occupants per unit for market-rate.

Table 22: Occupancy, Chestnut Village Site, 1C

Market-Rate			
Bedrooms	Yield Factor	Unit Total	Occupancy
0	1.000	8	8
1	1.500	8	12
2	3.000	19	57
3	4.500	0	
Total			77
Affordable			
Bedrooms	Yield Factor	Unit Total	Occupancy
0	1.000	1	1
1	1.500	1	2
2	3.000	3	9
3	4.500	3	14
Total			26

Source: Ross Haber & Associates, 2016

Table 23: Occupancy, Former Ken Smith Site, 2C

Market-Rate			
Bedrooms	Yield Factor	Unit Total	Occupancy
0	1.000	15	15
1	1.500	15	23
2	3.000	34	102
3	4.500	0	-
Total			140
Affordable			
Bedrooms	Yield Factor	Unit Total	Occupancy
0	1.000	1	1
1	1.500	2	3
2	3.000	5	15
3	4.500	4	18
Total			37

Source: Ross Haber & Associates, 2016

Table 24: Occupancy, Dayton Site, 3C

Market-Rate			
Bedrooms	Yield Factor	Unit Total	Occupancy
0	1.000	18	18
1	1.500	18	27
2	3.000	39	117
3	4.500	0	0
Total			162
Affordable			
Bedrooms	Yield Factor	Unit Total	Occupancy
0	1.000	1	1
1	1.500	2	3
2	3.000	5	15
3	4.500	5	23
Total			13

Source: Ross Haber & Associates, 2016

Table 25: Occupancy, Enclave Site, 4C

Market-Rate			
Bedrooms	Yield Factor	Unit Total	Occupancy
0	1.000	8	8
1	1.500	8	12
2	3.000	18	54
3	4.500	0	
Total			74
Affordable			
Bedrooms	Yield Factor	Unit Total	Occupancy
0	1.000	0	0
1	1.500	1	2
2	3.000	2	6
3	4.500	3	14
Total			21

Source: Ross Haber & Associates, 2016

Tables 26-28 show the occupancy rate under the existing proposal 2B - 4B. The total number of units is 68 yielding an estimated 160 occupants, of which 124 are in market-rate units and 36 are in affordable units.

Table 26: Occupancy, Former Ken Smith Site, 2B

Market-Rate			
Bedrooms	Yield Factor	Unit Total	Occupancy
0	1.000	4	4
1	1.500	5	8
2	3.000	12	36
3	4.500	0	
Total			48
Affordable			
Bedrooms	Yield Factor	Unit Total	Occupancy
0	1.000	1	1
1	1.500	1	2
2	3.000	2	6
3	4.500	1	5
Total			13

Source: Ross Haber & Associates, 2016

Table 27: Occupancy, Dayton Site, 3B

Market-Rate			
Bedrooms	Yield Factor	Unit Total	Occupancy
0	1.000	5	5
1	1.500	6	9
2	3.000	13	39
3	4.500	0	
Total			53
Affordable			
Bedrooms	Yield Factor	Unit Total	Occupancy
0	1.000	1	1
1	1.500	2	3
2	3.000	2	6
3	4.500	1	5
Total			15

Source: Ross Haber & Associates, 2016

Table 28: Occupancy, Enclave Site, 4B

Market-Rate			
Bedrooms	Yield Factor	Unit Total	Occupancy
0	1.000	2	2
1	1.500	2	3
2	3.000	6	18
3	4.500	0	0
Total			23
Affordable			
Bedrooms	Yield Factor	Unit Total	Occupancy
0	1.000	0	0
1	1.500	0	0
2	3.000	1	3
3	4.500	1	5
Total			8

Source: Ross Haber & Associates, 2016

4.4 CALCULATING STUDENT YIELDS PER UNIT

This section develops student yield factors for both affordable and market-rate units. In the process, yield factors were developed based upon both type of unit (market-rate or affordable) and the bedroom counts. Typically, demographers have relied upon the 2006 study done by David Listokin et.al. which is commonly referred to as the Rutgers Study. The study is now 10 years old and much of the data is no longer valid. In our experience, we have found that the study generally under-estimates yield per household. Further, although the study does its analysis breaking the State up into three regions (North, Central and South), it does not do town- or even county-specific estimates.

We have found that finding similar units within a town or in similar towns and calculating student yields on that basis provides greater accuracy regarding student yields. For Ridgewood, we used data from 2014 in which the Village listed the number of multifamily units and the School District provided the number of students coming from those units (excluding any units which were age-restricted). The data showed that there were a total of 835 units in which a total of 204 public school students resided. This gave an average yield of 0.2443 students per unit (for multifamily units). This was an average yield across all multifamily units and is not adjusted for either different types of apartments (number of bedrooms) or by market-rate or affordability. In our research, we could not find any clear definition as to the ratio between student yields from market-rate homes and those from affordable homes. Rutgers has not updated its study and relied on the Mt. Laurel model to project affordable units. In our experience, we have found that affordable units provide

yields that are between 1.5 and 2 times the yield of market-rate units. For this study we doubled the yield for affordable units to 0.49. The yield factor for market-rate units was kept at 0.2443.

The average yield for market-rate homes was calculated by taking the total of each unit by bedroom size and dividing it by the total number of units allocated to market share. Table 29 shows the calculations:

Table 29: Student Yields, Proposed Sites (Scenarios 1C – 4C)

Bedrooms	1	2	3	Total
Market-Rate	98	110	0	208
Factor	0.1176	0.2443	-	-
Yield	12	27	-	38
Affordable	9	15	15	39
Factor	0.2338	0.48862	0.97724	-
Yield	2	8	15	25
Students	14	35	15	63

Source: Ross Haber & Associates, 2016

Table 29 shows the calculation of the student yield number and the resulting number of students from both market-rate and affordable units. The average yield rate based upon the current number of multi-family units in the Village was 0.2443. It was assumed that studio apartments would yield a negligible amount of school-age children and the one-bedroom designation included both one-bedroom and studios the yield factor was reduced by 50%. The yields for affordable units was doubled. In this study, we did not allocate any three-bedroom apartments to market share and we estimated the yield for three bedroom apartments to be approximately double the average yield rate. In any instance the number of three bedroom apartments is so small as not have more than a marginal impact on the overall projection.

The total number of students projected from the proposed sites is 63, with 39 coming from market-rate units and 24 from affordable. In the next section, these students will be added to the previous projection done for the Ridgewood Public Schools. Table 30 shows the distribution by grade level for these projected 63 students.

Table 30: Grade Level Distribution for Proposed Sites

Grades	K-5	6-8	9-12
Ratio	0.6	0.3	0.1
Total	38	19	6
Per Grade	7	7	2

Source: Ross Haber & Associates, 2016

This calculation was done by distributing the students as follows: 60% grades K-5; 30% grades 6-8; and 10% 9-12. The assumption is that parents tend to relocate with younger rather than older children.

Table 31: Student Yields, Existing Sites (Scenarios 2B – 4B)

Bedrooms	1	2	3	Total
Market-Rate	24	31	0	
Factor	0.1222	0.2443	-	
Students	3	8	-	11
Affordable	4	6	3	
Factor	0.24	0.49	1.2	
Students	1	3	4	8

Source: Ross Haber & Associates, 2016

Table 31 shows the projections for the existing sites. The total number of students from these developments is estimated to be 19, of which 11 will come from market rate homes and 8 from affordable units. Table 32 shows the grade level distribution which was done using the same proportion as were done for the market rate units.

Table 32: Grade Level Distribution for Existing Sites

Grades	K-5	6-8	9-12
Ratio	0.6	0.3	0.1
Total	11	6	2
Per Grade	3	2	1

Source: Ross Haber & Associates, 2016

4.5 POTENTIAL IMPACT ON THE RIDGEWOOD PUBLIC SCHOOLS

This section analyzes the impact of the proposed and existing sites on the Ridgewood Public Schools. It will be based upon full build-out, with the assumption that the construction will be completed within the five years of this projection (out year being 2020-21). It is important to note that it is not possible to project exactly when students will enter the system and the grade level distribution of these students. For the purpose of this study, 60% of the projected students will be from grades K-5, 30% from grades 6-8, and 10% from grades 9-12. They will be distributed evenly across the grade levels.

The baseline for this projection is done based upon the November 2015 enrollment projection done for the Ridgewood Public Schools. It is important to note that those projections were done

on two levels, the first was based upon the current system which has a half-day kindergarten program, and the second was done estimating the impact of a full-day kindergarten. This study will consider both projections

Table 35, on page 61, shows the enrollment history and projection for the Ridgewood Public Schools out to the 2020-21 school year. This table is based upon the current organization levels of the school district with half-day kindergarten. The table shows that the enrollment in the schools declined slightly from the 2010-11 to the 2015-16 school year. The projection going forward indicates a further enrollment decline; however the elementary school enrollment appears to have stabilized.

There are several concerns regarding the impact of these developments and the capability of the District to implement a full-day kindergarten. The first concern is that in moving from a half-day kindergarten program to a full-day program, there could be a greater demand on the schools. The enrollment history indicates that there is an average 11% increase of enrollment between kindergarten and first grade. While some parents choose to keep their children home prior to first grade many, due to work commitments, have their children in private schools through kindergarten. This could mean that there could be as much as an 11% increase in the number of kindergarten students entering the schools. When the school-based analysis was done, this possible increase in enrollment was considered, and even with that potential growth, the administration was able to find space for a full-day program.

It is estimated that the maximum number of students that is projected from these proposed sites is 63, with a grade level distribution of 7 for the elementary school grades. That would include an additional 7 students for kindergarten. Based upon the location of the potential developments, it appears that two of the six elementary schools will be impacted by the new developments: Orchard and Ridge. Split between the two elementary schools, this would add approximately 21 students per school, or 4 students per grade (rounded up). Based upon different construction timeframes, not all of these students will enter at once but will be spread out over several years. Table 33, below, shows the current history and enrollment for Orchard Elementary School.

This table indicates that at the enrollment in Orchard is declining. It appears that it should be able to accommodate students from the new housing developments. If this school were to move to a full-day kindergarten program, it would require three full-day sections, which has already been included in the tentative plan for full-day kindergarten. Based upon projections, the average class size for three sections would be 15 students per class. Even with a possible increase in enrollment based upon the introduction of the full-day program, this school, will be able to handle students from the new developments.

The enrollment in Ridge appears to be relatively stable, with a marginal decline projected through 2020-21. As with Orchard, it is estimated that the school could, once full build-out is achieved, increase by about 21 students over the projection. However, just as with Orchard, these students will not enter at the same time but will be distributed over time. For the full-day kindergarten program there currently is a plan for three sections. The projected enrollment based upon class

size is about 21 per grade. If there is an increase based upon the number of parents who will enter students into kindergarten, it could increase average class size to about 24, which is a little higher than optimal for kindergarten. Of course, it is difficult to predict when these students will enter the system. The other possibility, based upon the location of the developments and the proximity of both schools to these developments, is that it might be possible for a larger number of these students from the new construction to go to Orchard, where there appears to be a little more room. This is strictly a Board of Education decision, but if necessary could be an option.

Table 33: Orchard Elementary School Enrollment History and Projection

Orchard			KG		1		2		3		4		5	K-5	Sp Ed	PK	Total
	Births																
2010-11	142	0.38	54		61		56		53		61		58	343			343
				0.98	1.02		1.05		1.02		0.98						
2011-12	138	0.34	47		53		62		59		54		60	335			335
				1.09	1.04		1.00		0.97		0.96						
2012-13	165	0.33	55		51		55		62		57		52	332			332
				1.07	0.98		0.96		1.00		0.95						
2013-14	117	0.33	39		59		50		53		62		54	317			317
				1.21	1.03		0.92		1.06		0.98						
2014-15	138	0.30	42		47		61		46		56		61	313			313
				1.05	1.00		0.98		1.04		1.00						
2015-16	120	0.40	48		44		47		60		48		56	303			303
		0.34		1.05	1.01		0.98		1.02		0.97						
Year			KG		1		2		3		4		5	K-5	Sp Ed	PK	Total
2016-17	124		46		50		44		46		61		47	294			294
2017-18	124		46		48		51		43		47		59	294			294
2018-19	124		44		48		48		50		44		46	280			280
2019-20	124		45		46		48		47		51		43	280			280
2020-21	124		46		47		46		47		48		49	283			283

We also believe that students from these developments will not have a significant impact on class sizes in grades 1-5.

If the existing site options are chosen then there would be marginal impact on the schools in that it will only add a total of 21 students to the two schools.

The enrollment and utilization study done for the Ridgewood Public Schools, found in the appendix, has all of the charts and tables providing a wider view of all of the data and findings regarding future enrollment and building capacity. This study built on that to show determine what, if any impact, the new developments will have on the District.

Table 34: Ridge Elementary School Enrollment History and Projection

Ridge			KG		1		2		3		4		5	K-5	Sp Ed	PK	Total
	Births																
2010-11	142	0.51	73		86		71		98		79		89	496			496
				1.26		1.05		1.03		1.07		1.10					
2011-12	138	0.38	53		92		90		73		105		87	500			500
				1.36		1.08		1.02		1.04		1.02					
2012-13	165	0.42	69		72		99		92		76		107	515			515
				1.23		1.01		1.06		1.04		1.07					
2013-14	117	0.48	56		85		73		105		96		81	496			496
				1.25		0.96		1.01		0.93		0.99					
2014-15	138	0.49	68		70		82		74		98		95	487			487
				0.97		1.01		1.04		0.99		0.99					
2015-16	120	0.51	61		66		71		85		73		97	453			453
				1.18		1.02		1.03		1.01		1.03					
Year			KG		1		2		3		4		5	K-5	Sp Ed	PK	Total
2016-17	124		61		72		67		73		86		75	434			434
2017-18	124		63		72		73		69		74		89	440			440
2018-19	124		62		74		73		75		70		76	430			430
2019-20	124		63		73		75		75		76		72	434			434
2020-21	124		62		74		74		77		76		78	441			441

4.6 CONCLUSION

The objective of this part of the study was to provide information regarding the impact of the new housing developments on the Ridgewood Public Schools. In conclusion, we have found:

1. Based upon the current number of students coming from the existing multifamily rental apartments, 63 new students would enter the system in grades K-12 as the developments are built. These students would come in over time, and it does not appear that they will have a major impact on the District.
2. Only two of the elementary schools will be impacted: Orchard and Ridge. It appears that Orchard will have no problem handling these new students and, in fact, may have room to take a higher number of these new students than Ridge. Of course, how this is done is a decision of the Board of Education.
3. It does not appear that the District will require any additional teaching staff to accommodate these new students (it should be noted that the District has already begun to plan for additional kindergarten teachers should it implement a full-day kindergarten program).
4. We do not believe that there will be anything other than the marginal costs of supplies to accommodate students from these developments; therefore, we do not believe there will be any budgetary impact to the School District.

Section 4: Ridgewood School District Impacts

Table 35: District-Wide Enrollment History and Projection

Year	Births		K	1	2	3	4	5	6	7	8	9	10	11	12	K-5	6-8	9-12	Sub Total	PK	Total
2010-11	142	2.70	384	467	421	463	444	483	448	454	459	446	415	400	422	2662	1361	1683	5706	47	5753
			1.09	1.02	1.02	1.03	1.02	1.01	1.00	0.99	0.93	0.98	0.99	0.99							
2011-12	138	2.59	358	419	475	431	477	453	487	448	451	425	435	412	395	2613	1386	1667	5666	35	5701
			1.12	1.07	1.03	1.02	1.01	1.03	0.98	1.00	0.95	1.00	0.98	1.00							
2012-13	165	2.31	381	402	450	488	440	481	466	478	449	427	423	427	414	2642	1393	1691	5726	39	5765
			1.09	1.06	1.01	1.01	1.01	0.99	0.99	1.00	0.94	1.00	1.01	0.99							
2013-14	117	2.86	335	417	425	455	491	444	475	463	479	423	428	428	421	2567	1417	1700	5684	35	5719
			1.15	1.02	1.02	0.98	1.00	1.02	0.98	1.02	0.92	1.00	1.00	0.98							
2014-15	138	2.59	357	386	426	433	448	491	453	464	470	443	424	429	420	2541	1387	1716	5644	34	5678
			1.12	1.02	1.00	1.01	1.02	1.00	1.02	1.00	0.94	0.98	0.99	0.99							
2015-16	120	3.01	361	399	392	427	438	459	493	464	464	441	435	420	424	2476	1421	1720	5617	31	5648
		2.67	1.11	1.04	1.02	1.01	1.01	1.01	0.99	1.00	0.94	0.99	0.99	0.99							
Year			K	1	2	3	4	5	6	7	8	9	10	11	12	K-5	6-8	9-12	Sub Total	PK	Total PK-12
2016-17	124		358	401	415	400	431	442	464	488	464	436	437	431	416	2447	1416	1720	5583	35	5618
2017-18	124		358	397	417	423	404	435	446	459	488	436	432	433	427	2434	1393	1728	5555	38	5593
2018-19	124		354	397	413	425	427	408	439	442	459	459	432	428	429	2424	1340	1748	5512	38	5550
2019-20	124		358	393	413	421	429	431	412	435	442	431	454	428	424	2445	1289	1737	5471	38	5509
2020-21	124		358	397	409	421	425	433	435	408	435	415	427	449	424	2443	1278	1715	5436	37	5473

5.0 IMPACTS ON COMMUNITY SERVICES AND INFRASTRUCTURE

This section discusses potential impacts on the Village's provision of community services and infrastructure resulting from projected development under the various alternative development scenarios. Projected demand for these community services and infrastructure was determined based on the commercial square footage and residential units and population calculated for each scenario, together with consultation from the relevant community service providers in Ridgewood. That demand was then compared with the existing capacities of the providers to determine the anticipated impacts resulting from potential development.

5.1 WATER

Water demand has been established for residential use by the New Jersey Residential Site Improvement Standards (RSIS), and for non-residential uses by the New Jersey Department of Environmental Protection (NJ DEP) in Title 7 of the New Jersey Administrative Code. The RSIS standard is 75 gallons per day, per person, while the NJ DEP non-residential standard is 0.125 gallons per day, per square foot. Based on those standards, water demand under the alternative development scenarios was calculated as shown in Table 36, below. As indicated in the table, total projected water demand for the four sites is **15,087 gpd** under the existing zoning commercial alternative, **20,942 gpd** under the existing zoning mixed-use alternative and **44,731 gpd** under the proposed zoning.

Ridgewood Water reports that its average daily demand is 5 million to 6 million gallons, while peak demand during the summer can reach at least 15 million gallons per day. The projected increase in water demand from the three alternative development scenarios would therefore represent a minimum increase of **0.3%**, **0.4%** and **0.9%**, respectively, of average daily demand. While the impact on demand under the proposed zoning is clearly greater than under either existing zoning scenario, it represents an insignificant portion of the Village's average daily demand, and an even smaller portion of the peak summer demand.

It is important to note that these calculations assume that all non-residential square footage would be retail and/or office use. Restaurants, which generate a higher water demand (10 gpd per person), were not included. This is because the NJ DEP's standard varies according to restaurant type, and at this time there is no way of knowing how much of the non-residential space would be devoted to restaurants, or the size and type of any restaurant. However, assuming that one-quarter of the total non-residential space in each of the scenarios was devoted to restaurant use instead of office/retail, and that each seat/person requires 15 square feet, this results in total projected water demand for the four sites of **31,431 gpd** under the existing zoning commercial alternative, **30,778 gpd** under the existing zoning mixed-use alternative and **49,328 gpd** under

the proposed zoning.⁴ Even these increased water demand numbers would represent a minimum increase of **0.6%** under both existing zoning scenarios and **1%** under the proposed zoning scenario, of average daily demand.

Seasonal water restrictions have been an issue for Ridgewood in recent years. Stage 1, or moderate, restrictions are automatically imposed every year from June 1 through August 31. These restrictions limit irrigation to Tuesdays, Thursdays and Saturdays for properties with odd-numbered addresses, and Wednesdays, Fridays and Sundays for properties with even-numbered addresses. On Mondays, irrigation is limited to use of a hand-held hose; hand-held irrigation is also allowed at all other times. More stringent water restrictions are imposed based on the operating conditions of the water supply system, with variables such as heat, precipitation and out-of-service facilities affecting the system. Restrictions in excess of Stage 1 were imposed in 2007, 2010, 2011 and 2015. These restrictions further limit irrigation according to the severity of the conditions, up to and including a total ban on irrigation.

Any proposed development in the four rezoning sites would, like all of Ridgewood, be subject to seasonal water restrictions. The limits on irrigation would not be expected to have a significant impact on commercial-only or mixed-use developments, given the limited amount of landscaping typically present. For multifamily developments, there could be some impact given on-site landscaping, but likely not to the same extent as single-family homes, which usually have more substantial lawns and backyards.

Other water-related infrastructure issues would be addressed for any actual development as part of the site engineering and building design. For example, as part of its prior assessment of the proposed Chestnut Village, Dayton and Enclave developments, Ridgewood Water noted that the water main serving the Dayton and Chestnut Village sites may need to be supplemented due to the size of the existing main and limited reinforcing supply from the west because of the railroad tracks. It is assumed that this would be an issue for the former Ken Smith site as well. In the case of any actual development, Ridgewood Water would require that the site developer perform hydrant testing and hydraulic calculations to determine if any infrastructure improvements are required. If warranted, the developer could be responsible for the cost of any such improvements.

Since each project proposes residential service to more than 30 realty improvements, a NJ DEP Bureau of Water Systems Engineering Water Main Construction Permit would be required. Subject to Ridgewood Water's available allocation/capacity at the time of the permit, approval for a water connection may or may not be granted.

At this time, Ridgewood Water does not have any capital improvement plans for water infrastructure serving any of the four sites.

⁴ One-quarter of the office/retail demand is replaced with restaurant demand, and added to multifamily residential demand, as applicable.

Table 36: Projected Water Demand

	Scenario A: Existing Zoning, Commercial Alternative	Scenario B: Existing Zoning, Mixed-Use Alternative	Scenario C: Proposed Zoning, Residential/Mixed- Use Alternative
Chestnut Village Site			
Residential Units	0	0	43
Residential Population	0	0	103
Non-Residential Floor Area (sf)	24,041	20,034	0
Residential Water Demand (gpd)	0	0	7,725
Non-Residential Water Demand (gpd)	3,005	2,504	0
Total Water Demand (gpd)	3,005	2,504	7,725
Former Ken Smith Site			
Residential Units	0	26	76
Residential Population	0	61	177
Non-Residential Floor Area (sf)	31,016	15,000	18,250
Residential Water Demand (gpd)	0	4,575	13,275
Non-Residential Water Demand (gpd)	3,877	1,875	2,281
Total Water Demand (gpd)	3,877	6,450	15,556
Dayton Site			
Residential Units	0	30	88
Residential Population	0	68	175
Non-Residential Floor Area (sf)	44,000	25,000	0
Residential Water Demand (gpd)	0	5,100	13,125
Non-Residential Water Demand (gpd)	5,500	3,125	0
Total Water Demand (gpd)	5,500	8,225	13,125
Enclave Site			
Residential Units	0	12	40
Residential Population	0	31	95
Non-Residential Floor Area (sf)	21,640	11,500	9,600
Residential Water Demand (gpd)	0	2,325	7,125
Non-Residential Water Demand (gpd)	2,705	1,438	1,200
Total Water Demand (gpd)	2,705	3,763	8,325
TOTAL WATER DEMAND (GPD)	15,087	20,942	44,731

Source: BFJ Planning, based on RSIS Standards and NJ Administrative Code Title 7:10-12.6

5.2 SEWER

Wastewater (sewer) demand has been established for all uses by the NJ DEP in Title 7 of the New Jersey Administrative Code. The standards are as follows:

- Residential, 1-bedroom unit: 150 gpd
- Residential, 2-bedroom unit: 225 gpd
- Residential, unit with 3 or more bedrooms: 300 gpd
- Commercial/Office: 0.1 gpd per square foot

Based on those standards, wastewater demand under the alternative development scenarios was calculated as shown in Table 37, below. As indicated in the table, total projected wastewater demand for the four sites is **12,070 gpd** under the existing zoning commercial alternative, **20,578 gpd** under the existing zoning mixed-use alternative and **49,635 gpd** under the proposed zoning.

The Ridgewood Department of Public Works (DPW) reports that the Village's sanitary sewer plant's current dry weather flow is approximately 3 million gallons per day. The plant is permitted for 5 million gallons per day. The projected increase in wastewater demand from the three alternative development scenarios would therefore represent an increase of **0.4%**, **0.7%** and **1.7%**, respectively, of the current dry weather flow. While the impact on sewer demand under the proposed zoning is clearly greater than under either existing zoning scenario, it represents an insignificant portion of the Village's current dry weather flow. Given that the sanitary sewer plant is only operating at 60% of its permitted capacity, this increase is not substantial.

It is important to note that the above calculations assume that all non-residential square footage would be retail and/or office use. Restaurants, which generate a higher sewer demand (35 gallons per day per person), were not included. This is because the NJ DEP's standard varies according to restaurant type, and at this time there is no way of knowing how much of the non-residential space would be devoted to restaurants, or the size and type of any restaurant. However, assuming that one-quarter of the total non-residential space in each of the scenarios was devoted to restaurant use instead of office/retail, and that each seat/person requires 15 square feet, this results in total projected sewer demand for the four sites of **79,459 gpd** under the existing zoning commercial alternative, **60,518 gpd** under the existing zoning mixed-use alternative and **67,010 gpd** under the proposed zoning.⁵ Even these increased water demand numbers would represent a minimum increase of **2.6%** under the existing zoning commercial alternative, **2.0%** under the existing zoning mixed-use alternative and **2.2%** under the proposed zoning scenario, of average daily demand.

⁵ One-quarter of the office/retail demand is replaced with restaurant demand, and added to multifamily residential demand, as applicable.

Table 37: Projected Wastewater Demand

	Scenario A: Existing Zoning, Commercial Alternative	Scenario B: Existing Zoning, Mixed-Use Alternative	Scenario C: Proposed Zoning, Residential/Mixed- Use Alternative
Chestnut Village Site			
Residential Units	0	0	43
Residential Population	0	0	103
Non-Residential Floor Area (sf)	24,041	20,034	0
Residential Wastewater Demand (gpd)	0	0	8,550
Non-Residential Wastewater Demand (gpd)	2,404	2,003	0
Total Wastewater Demand (gpd)	2,404	2,003	8,550
Former Ken Smith Site			
Residential Units	0	26	76
Residential Population	0	61	177
Non-Residential Floor Area (sf)	31,016	15,000	18,250
Residential Wastewater Demand (gpd)	0	5,175	14,925
Non-Residential Wastewater Demand (gpd)	3,102	1,500	0
Total Wastewater Demand (gpd)	3,102	6,675	14,925
Dayton Site			
Residential Units	0	30	88
Residential Population	0	68	175
Non-Residential Floor Area (sf)	44,000	25,000	0
Residential Wastewater Demand (gpd)	0	5,775	17,250
Non-Residential Wastewater Demand (gpd)	4,400	2,500	0
Total Wastewater Demand (gpd)	4,400	8,275	17,250
Enclave Site			
Residential Units	0	12	40
Residential Population	0	31	95
Non-Residential Floor Area (sf)	21,640	11,500	9,600
Residential Wastewater Demand (gpd)	0	2,475	7,950
Non-Residential Wastewater Demand (gpd)	2,164	1,150	960
Total Wastewater Demand (gpd)	2,164	3,625	8,910
TOTAL WASTEWATER DEMAND (GPD)	12,070	20,578	49,635

Source: BFJ Planning, based on RSIS Standards and NJ Administrative Code Title 7:14A-23.3

Detailed sewer-related infrastructure issues would be addressed for any actual development as part of the site engineering and building design. For example, as part of its 2013 assessment of the four proposed developments (including the previously proposed Ridgewood Station project on the former Ken Smith Site), the DPW noted that the Dayton, former Ken Smith and Chestnut Village sites all have 8-inch mains that flow into larger mains. This could indicate that the 8-inch mains would need to be relined or pipe burst (upsized) for increased capacity (this was specifically recommended in the case of the Ridgewood Station project, because of known infiltration and inflow issues with the pipe in Franklin Avenue). As with water infrastructure, any specific system upgrades would be determined by calculating flow values as part of the site development, and would depend largely on the nature of the uses proposed. For example, some commercial uses, in particular large restaurants, can be water-use intensive, with impacts on wastewater. If improvements are warranted, the developer could be responsible for their cost.

Ridgewood upgraded its sanitary sewer plant in 2005, and does not anticipate any upgrades in the foreseeable future, unless NJ DEP requires a new treatment level. The DPW reports that infiltration and inflow (I/I) issues are of a much greater concern than any proposed development.

5.3 EMERGENCY SERVICES

A. Police

The Ridgewood Police Department provided data on calls for service over a four-year period, from 2012 to 2015, as shown in Table 38. Calls to multifamily buildings have fluctuated over the period, but generally fall in the range of 1% to 3% of total calls for service.

Table 38: Ridgewood Police Department Calls for Service, 2012-2015

Year	Total Calls for Service (CFS)	Multifamily Calls for Service (CFS)	Multifamily CFS as Percent of Total
2012	23,752	393	1.65%
2013	23,013	526	2.29%
2014	23,714	537	2.26%
2015	22,489	642	2.86%
Four-Year Average	23,242	526.5	2.27%

Source: Ridgewood Police Department, February 2016

According to the U.S. Census Bureau's *American Community Survey* 5-year estimates for the period of 2010-2014 (the most recent data available), Ridgewood has a total population of 25,040 people. Of that total, 1,143 people or 4.6%, live in buildings with five or more dwelling units, and can be considered the Village's multifamily population.

Based on the data provided by the Police Department, the four-year average of calls for service was 23,242 total calls and 526.5 calls to multifamily buildings. With the respective total population and multifamily population provided above, this equates to 0.93 total police calls per capita, and 0.46 multifamily police calls per capita.

With these assumptions, estimates for police calls for service under the alternative development scenarios were calculated as shown in

Table 39. As indicated, the total projected annual calls for service for the four sites is **73** (1.4 per week) under the existing zoning mixed-use alternative and **253** (4.9 per week) under the proposed zoning. This represents an increase of represent **0.3%** and **1.1%**, respectively, over the total four-year average of calls. While the impact on police calls under the proposed zoning is clearly greater than under either existing zoning scenario, it represents an insignificant portion of the call levels recently experienced by the Village.

It is important to note that police, fire and emergency-services call data were not available for commercial uses or multifamily dwellings as part of mixed-use buildings. As a result, no projected call demand can be generated for Scenario A, and projected demand for commercial uses is not included in Scenarios B or C.

The Police Department reports that it is funded for 43 sworn officers, but its current staffing is 39 officers (several of whom are presently in training or on administrative duty, slightly reducing operational capacity)..

With regard to facilities, the Police Department has some existing space constraints in its space at the municipal complex on North Maple Avenue. However, locker room space could accommodate additional personnel if adjustments are made in other areas. Thus, while future development of any or all of the four rezoning sites could have a minor impact on the Police Department, it is not anticipated to require the addition of staff or upgrading of facilities.

Table 39: Projected Police Department Calls for Service

	Scenario A: Existing Zoning, Commercial Alternative	Scenario B: Existing Zoning, Mixed-Use Alternative	Scenario C: Proposed Zoning, Residential/Mixed- Use Alternative
Chestnut Village Site			
Residential Units	N/A	N/A	43
Residential Population	N/A	N/A	103
<i>Annual CFS at 0.46 calls per capita</i>	<i>N/A</i>	<i>N/A</i>	47
Former Ken Smith Site			
Residential Units	N/A	26	76
Residential Population	N/A	61	177
<i>Annual CFS at 0.46 calls per capita</i>	<i>N/A</i>	28	81
Dayton Site			
Residential Units	N/A	30	88
Residential Population	N/A	68	175
<i>Annual CFS at 0.46 calls per capita</i>	<i>N/A</i>	31	81
Enclave Site			
Residential Units	N/A	12	40
Residential Population	N/A	31	95
<i>Annual CFS at 0.46 calls per capita</i>	<i>N/A</i>	14	44
TOTAL ANNUAL PROJECTED POLICE CALLS FOR SERVICE	N/A	73	253

Source: BFJ Planning, based on Ridgewood Police Department and U.S. Census Bureau Data

B. Fire

The Ridgewood Fire Department answered a total of 2,625 calls in 2015. This call volume was substantially higher than in recent previous years, as shown in

Table 40, leading to a four-year average of 2,217.25. According to the department, 5% of the total calls in 2015 were to multifamily buildings. Applying that ratio to the four-year call average yields a multifamily average for the four-year period of 110.86. Based on the four-year call averages, Ridgewood's total population of 25,040 and multifamily population of 1,143, this equates to 0.09 total fire calls per capita, and 0.10 multifamily fire calls per capita.

Table 40: Ridgewood Fire Department Calls for Service, 2012-2015

Year	Total Calls for Service (CFS)
2012	2,235
2013	1,921
2014	2,088
2015	2,625

Source: Ridgewood Fire Department, February 2016 and 2014 Annual Report

With these assumptions, estimates for fire calls for service under the alternative development scenarios were calculated as shown in Table 41. As indicated in the table, the total annual projected calls for service for the four sites is **16** (0.3 per week) under the existing zoning mixed-use alternative and **56** (1.1 per week) under the proposed zoning. This represents an increase of **0.7%** and **2.6%**, respectively, over the total four-year average of calls. While the impact on fire calls under the proposed zoning is clearly greater than under either existing zoning scenario, it represents an insignificant portion of the call levels recently experienced by the Village.

The Fire Department reports that its current staffing level is 40 career firefighters and 12 volunteer firefighters. There are no staffing issues at current levels. In addition to fires, these firefighters respond to a range of emergency situations, including motor vehicle accidents, hazardous spills, downed wires and medical emergencies. The department also handles minor emergencies such as pumping flooded basements, responding to activations of carbon monoxide and smoke detectors, resident lock-outs and child lock-ins and electrical problems. The department also has a rescue dive team to handle ice and water rescues.

During weekday hours of 6 a.m. to 7 p.m., the Fire Department responds to a significant number of medical emergencies in conjunction with Ridgewood Emergency Services. In fact, in 2015, 879 calls or approximately one-third of all Fire Department calls, were related to an emergency medical services (EMS) incident. Having both a fire engine and ambulance respond simultaneously to an incident ensures that medical assistance reaches the scene within three to four minutes.

With regard to facilities and future plans, the fire headquarters building at 201 East Glen Avenue, which serves the downtown area, was constructed in 1992 to accommodate the current staffing levels. The firehouse would need remodeling to allow for additional staff; however, no staff increases or changes to facilities are planned. In addition to the headquarters facility, the Fire Department has a station at 311 West Glen Avenue to serve the western side of Ridgewood.

In 2016, the department plans to hire one firefighter to replace a firefighter who retired, and also plans to replace a 27-year-old fire pumper. There are no known equipment issues serving the current level of development or buildings greater than four stories.

Table 41: Projected Fire Department Calls for Service

	Scenario A: Existing Zoning, Commercial Alternative	Scenario B: Existing Zoning, Mixed-Use Alternative	Scenario C: Proposed Zoning, Residential/Mixed- Use Alternative
Chestnut Village Site			
Residential Units	N/A	0	43
Residential Population	N/A	0	103
Annual CFS at 0.10 calls per capita	N/A	0	10
Former Ken Smith Site			
Residential Units	N/A	26	76
Residential Population	N/A	61	177
Annual CFS at 0.10 calls per capita	N/A	6	18
Dayton Site			
Residential Units	N/A	30	88
Residential Population	N/A	68	175
Annual CFS at 0.10 calls per capita	N/A	7	18
Enclave Site			
Residential Units	N/A	12	40
Residential Population	N/A	31	95
Annual CFS at 0.10 calls per capita	N/A	3	10
TOTAL ANNUAL PROJECTED FIRE CALLS FOR SERVICE	N/A	16	56

Source: BFJ Planning, based on Ridgewood Fire Department and U.S. Census Bureau Data

C. Emergency Medical Services

Ridgewood Emergency Services (RES) answered a total of 1,530 calls in 2015.⁶ According to RES, 284 calls, or about 19% of the total, were to multifamily buildings. Based on Ridgewood's total population of 25,040 and multifamily population of 1,143, this equates to 0.06 total EMS calls per capita, and 0.25 multifamily fire calls per capita.

⁶ Data prior to 2015 were not provided.

However, unlike with fire calls, the EMS calls to multifamily buildings are significantly higher relative to total calls (more than four times as high). This reflects the demographic makeup of the multifamily population, i.e., if the multifamily population is older on average than Ridgewood overall, this would likely generate more demand for ambulance services. In fact, according to the American Community Survey for 2010-2014, approximately 230 people in Ridgewood live in group quarters (e.g. nursing homes), which represents about 20% of the Village's multifamily population but would likely generate a disproportionate number of EMS calls. This assumption was confirmed by data from RES, which indicates that approximately three-fourths of all multifamily calls were to senior facilities or group homes.

Given that no projected development under the proposed zoning is anticipated to include nursing homes or senior housing, it is appropriate to remove the senior living/group home population from the total Ridgewood multifamily population, and the calls to senior facilities or group homes. Based on a multifamily population of 913 people (total multifamily population of 1,143, minus the 230 people living in group quarters), and using a multifamily call level of 71 (total multifamily calls of 284 minus the three-quarters that were to senior facilities or group homes), this equates to 0.08 multifamily calls per capita. This is more comparable to the experience of the Fire Department, which experienced a slightly higher call level to multifamily facilities than overall.

With these assumptions, estimates for EMS calls for service under the alternative development scenarios were calculated as shown in Table 42. As indicated in the table, the total annual projected calls for service for the four sites is **12** (0.2 per week) under the existing zoning mixed-use alternative and **44** (0.8 per week) under the proposed zoning. This represents an increase of represent **0.8%** and **2.9%**, respectively, over the total 2015 call level. While the impact on RES calls under the proposed zoning is slightly higher than under either existing zoning scenario, this impact represents an insignificant increase relative to the total number of calls RES receives per year. Because it equates to less than one additional call per week, on average, it is anticipated that RES could handle any additional calls resulting from the proposed developments; and in the event that RES must rely on mutual-aid agencies, those outside agencies do not charge the Village (see discussion below). Therefore, there is no expected budgetary impact to Ridgewood.

RES is constantly recruiting new volunteers; this is not driven by the types of facilities within the Village, but by the need to have enough volunteers to cover each shift, so that the use of outside agencies is limited as much as possible. For the four rezoning sites, the exact impact of future development depends on the type of use. For example, a senior-living facility would generate an increase in calls, while transit-oriented housing that attracts people without cars could result in more calls if people need to go to the hospital but do not have a vehicle. Commercial uses could also generate increased call volume depending on the use. A gym or similar athletic facility could be expected to result in more calls.

Currently, RES has a staff level of 35 riding members that provide coverage 24 hours a day, seven days a week, and staff three ambulances. The department reports that it is working within proper

staffing levels, with a wait list of an additional three probationary Emergency Medical Technicians (EMTs) waiting for shift assignment.

Table 42: Projected RES Calls for Service

	Scenario A: Existing Zoning, Commercial Alternative	Scenario B: Existing Zoning, Mixed-Use Alternative	Scenario C: Proposed Zoning, Residential/Mixed- Use Alternative
Chestnut Village Site			
Residential Units	N/A	N/A	43
Residential Population	N/A	N/A	103
Annual CFS at 0.08 calls per capita	N/A	N/A	8
Former Ken Smith Site			
Residential Units	N/A	26	76
Residential Population	N/A	61	177
Annual CFS at 0.08 calls per capita	N/A	5	14
Dayton Site			
Residential Units	N/A	30	88
Residential Population	N/A	68	175
Annual CFS at 0.08 calls per capita	N/A	5	14
Enclave Site			
Residential Units	N/A	12	40
Residential Population	N/A	31	95
Annual CFS at 0.08 calls per capita	N/A	2	8
TOTAL PROJECTED EMS CALLS FOR SERVICE	N/A	12	44

Source: BFJ Planning, based on Ridgewood Emergency Services and U.S. Census Bureau Data

RES uses Glen Rock Volunteer Ambulance as its first-line mutual aid unit when RES resources are stretched. As a further backup, RES periodically uses the paid service of Valley Hospital EMS. In 2015, RES had to contact mutual aid 19 times, with 12 calls placed to Valley Hospital EMS and seven calls to Glen Rock Volunteer Ambulance. Glen Rock does not bill for its services, while the services provided by Valley Hospital EMS are billed directly to the resident. Therefore, the Village is not billed for mutual aid services.

With regard to facilities and future plans, RES reports that its facility at 33 Douglas Place is crowded, and it does not have enough meeting, training, storage, sleeping or office space. Two of the special operations vehicles must be stored in another garage provided by Ridgewood's DPW, and another of RES' vehicles must be stored outside. These facilities issues are existing, and RES

has requested funds to expand its operations and facilities for some years. The Village is currently studying RES' space needs, but there are no current plans to enlarge the building. At the end of January 2016, RES took possession of a new ambulance to replace an older vehicle.

6.0 FISCAL IMPACTS

6.1 INTRODUCTION AND METHODOLOGY

A. Introduction

Determining the cost-benefit balance in terms of tax revenues and municipal costs of any proposed development is key to determining the project's fiscal viability. In this chapter, we will estimate the assessed value for each of the build out scenarios, the tax assessment and then the marginal costs of each of the three alternatives for the four development sites analyzed.

B. Methodology

There are three standard methods for determining the assessed value of a commercial property for tax purposes: cost, income, or market. The Village of Ridgewood Assessor's office uses a combination of the income (expected revenues of a property owner from leases and sales) and market (area comparables) methods to value any building.

In the absence of *pro formas*, the proposed alternatives were valued using the market method, sampling tax assessment data for commercial buildings in the Central Business District as provided by the Assessor's Office. The average assessed values are as follow:

- Office space value is estimated at roughly \$210 per square foot.
- Retail space value is estimated at roughly \$298 per square foot.
- Market rate value is assessed at \$134.09 per square foot.
- Affordable residential units are assessed at \$107.27 per square foot, or 80 percent of market rate as per COAH guidelines for moderate-income housing.

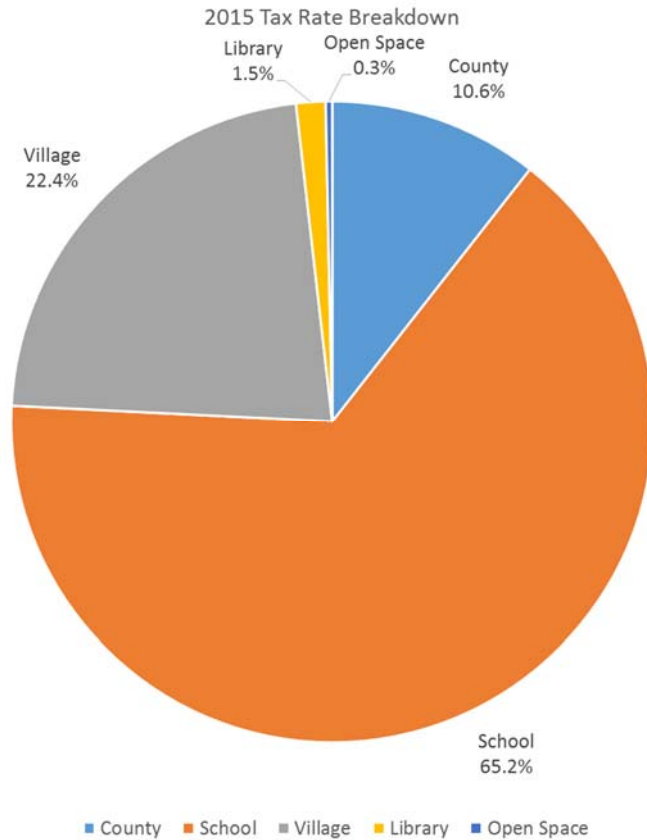
It should also be noted that for the Ken Smith and Enclave sites, it is assumed that some of the existing buildings (which have assessed values/are taxed) will be removed in lieu of new development.⁷ In these cases, the currently assessed values of those properties have been subtracted from the ratable estimates of new development.

To be conservative the general analysis is based on the current average assessment per square foot for multi-family residential as below. However, because these data include buildings of all ages and many different types, many of which were constructed before 1970, we have provided an alternative inflated to approximate current residential market conditions (\$195 per square foot

⁷ Ken Smith lots to be subtracted are Block 2005, Lots 11, 12, 13 and 14. The Enclave property to be subtracted is roughly 30% of the built area of Block 3703, Lot 8.01

for market rate and \$156 per square foot for affordable housing) in the site specific tables as the *Inflated Residential Alternative*.

The 2015 tax rate is \$2.433 per \$100 of assessed value. This overall rate is distributed among the school district (\$1.587), the Village (\$0.545), the County (\$0.257), the Library District (\$0.036), and the Open Space District (\$0.008) as shown in the chart below.



These rates were applied to the assessed values for each site's buildout scenarios as shown in the following section to determine expected tax yield given current conditions. It should be noted that impacts of the cap rate were not estimated under this scope of work.

6.2 SITE ASSESSMENTS AND TAX REVENUES

A. Chestnut Village Site

The total assessed values for the Chestnut Village site build-out scenarios range from \$5.05 million under non-residential existing conditions to \$7.5 million for mixed uses under proposed zoning.

Table 43: Chestnut Village Site, Assessed Value and Property Taxes

	Scenario A: Existing Zoning, All Commercial	Scenario B: Existing Zoning, Mixed Use	Scenario C: Proposed Zoning, Residential/Mixed Use
Res. Market Rate (SF)		-	49,258
Res. Affordable (SF)		-	8,693
Office	24,041	-	-
Retail	-	20,034	-
New Development Assessment	\$ 5,048,610	\$ 5,970,132	\$ 7,537,530
Total Property Taxes	\$ 122,833	\$ 145,253	\$ 183,388
Village	\$ 27,515	\$ 32,537	\$ 41,080
School District	\$ 80,121	\$ 94,746	\$ 119,621
<i>Inflated Residential Alternative</i>			
Net Buildout Assessment	\$ 5,048,610	\$ 5,970,132	\$ 10,961,432
Total Property Taxes	\$ 122,833	\$ 145,253	\$ 266,692
Village	\$ 27,515	\$ 32,537	\$ 59,740
School District	\$ 80,121	\$ 94,746	\$ 173,958

Source: Urbanomics, 2016

Total property taxes accrued to the Village would range between \$27,515 and \$41,080 per year. The school district would collect between \$80,121 and \$119,621 per year. The property taxes generated under the proposed zoning would total \$183,388, with \$41,080 going to the Village and \$119,621 to the school district.

Using the inflated residential rate assumptions, the property taxes accruing to the Village and School District could increase to \$59,740 and \$173,958, respectively, under the proposed zoning.

B. Former Ken Smith Site

The total assessed values for the former Ken Smith site build-out scenarios range from \$4.2 million under mixed uses under existing zoning conditions to \$13.8 million under proposed mixed-use conditions.

Table 44: Former Ken Smith Site, Assessed Value and Property Taxes

	Scenario A: Existing Zoning, All Commercial	Scenario B: Existing Zoning, Mixed Use	Scenario C: Proposed Zoning, Residential/Mixed Use
Res. Market Rate (SF)		28,220	87,452
Res. Affordable (SF)		7,055	15,433
Office	-	-	-
Retail	31,016	15,000	18,250
New Development Assessment	\$ 9,242,768	\$ 9,010,824	\$ 18,820,474
Old Development Removed from Rolls	\$ (5,039,600)	\$ (5,039,600)	\$ (5,039,600)
Net Buildout Assessment	\$ 4,203,168	\$ 3,971,224	\$ 13,780,874
Taxes	\$ 102,263	\$ 96,620	\$ 335,289
Village	\$ 22,907	\$ 21,643	\$ 75,106
School District	\$ 66,704	\$ 63,023	\$ 218,702
<i>Inflated Residential Alternative</i>			
Net Buildout Assessment	\$ 4,203,168	\$ 6,033,880	\$ 19,859,598
Total Property Taxes	\$ 102,263	\$ 146,804	\$ 483,184
Village	\$ 22,907	\$ 32,885	\$ 108,235
School District	\$ 66,704	\$ 95,758	\$ 315,172

Source: Urbanomics, 2016

Total property taxes accrued to the Village would range between \$22,907 and \$75,106 per year. The school district would collect between \$66,704 and \$218,702 per year. The property taxes generated under the proposed zoning would total \$335,289, with \$75,106 going to the Village and \$218,702 to the school district.

Using the inflated residential rate assumptions, the property taxes accruing to the Village and School District could increase to \$108,235 and \$315,172, respectively, under the proposed zoning.

C. Dayton Site

The total assessed values for the Dayton site build-out scenarios range from \$10.6 million under existing commercial zoning to \$15.5 million for proposed mixed-use existing zoning.

Table 45: Dayton Site, Assessed Value and Property Taxes

	Scenario A: Existing Zoning, All Commercial	Scenario B: Existing Zoning, Mixed Use	Scenario C: Proposed Zoning, Residential/Mixed Use
Res. Market Rate (SF)		32,727	101,420
Res. Affordable (SF)		8,182	17,898
Office	29,000	-	-
Retail	15,000	25,000	-
New Development Assessment	\$ 10,560,000	\$ 12,716,068	\$ 15,519,370
Taxes	\$ 256,925	\$ 309,382	\$ 377,586
Village	\$ 57,552	\$ 69,303	\$ 84,581
School District	\$ 167,587	\$ 201,804	\$ 246,292
<i>Inflated Residential Alternative</i>			
Net Buildout Assessment	\$ 10,560,000	\$ 15,108,165	\$ 22,569,000
Total Property Taxes	\$ 256,925	\$ 367,582	\$ 549,104
Village	\$ 57,552	\$ 82,339	\$ 123,001
School District	\$ 167,587	\$ 239,767	\$ 358,170

Source: Urbanomics, 2016

Total property taxes accrued to the Village would range between \$57,552 and \$84,581 per year. The school district would collect between \$167,587 and \$246,292 per year. The property taxes generated under the proposed zoning would total \$377,586.

Using the inflated residential rate assumptions, the property taxes accruing to the Village and School District could increase to \$123,001 and \$358,170, respectively, under the proposed zoning.

D. Enclave Site

The total assessed values for the Enclave site buildout scenarios range from \$1.9 million under non-residential existing conditions to \$7.4 million under mixed use under proposed zoning.

Table 46: Enclave Site, Assessed Value and Property Taxes

	Scenario A: Existing Zoning, All Commercial	Scenario B: Existing Zoning, Mixed Use	Scenario C: Proposed Zoning, Residential/Mixed Use
Res. Market Rate (SF)		14,973	46,401
Res. Affordable (SF)		3,743	8,188
Office	21,640	-	-
Retail	-	11,500	9,600
New Development Assessment	\$ 4,544,400	\$ 5,836,243	\$ 9,961,044
Old Development Removed from Rolls	\$ (2,567,986)	\$ (2,567,986)	\$ (2,567,986)
Net Buildout Assessment	\$ 1,976,414	\$ 3,268,258	\$ 7,393,058
Total Taxes	\$ 48,086	\$ 79,517	\$ 179,873
Village	\$ 10,771	\$ 17,812	\$ 40,292
School District	\$ 31,366	\$ 51,867	\$ 117,328
<i>Inflated Residential Alternative</i>			
Net Buildout Assessment	\$ 1,976,414	\$ 4,362,650	\$ 10,618,324
Total Property Taxes	\$ 48,086	\$ 106,143	\$ 258,344
Village	\$ 10,771	\$ 23,776	\$ 57,870
School District	\$ 31,366	\$ 69,235	\$ 168,513

Source: Urbanomics, 2016

Total property taxes accrued to the Village would range between \$10,771 under non-residential use of existing zoning to \$40,292 per year under the proposed mixed-use zoning. The school district would collect between \$31,366 and \$117,328 per year. The property taxes generated under the proposed zoning – the highest fiscal use – would total \$179,873.

Using the inflated residential rate assumptions, the property taxes accruing to the Village and School District could increase to \$57,870 and \$168,513, respectively, under the proposed zoning.

6.3 VILLAGE COSTS

The preparation of this analysis has included outreach to the heads of the Police, Fire, Emergency Medical Services (EMS) and Water and Sewer departments regarding the expected additional costs to the Village departments that would be attributed to the development of all four sites to the maximum possible build-out under all three alternatives. As noted in the Community Services section of this report, the anticipated impacts on each of these services from development of the sites is not anticipated to be significant relative to the existing capacity. The location of the sites is within the CBD, thus not extending the catchment areas of the departments. Also, none of the alternatives build-outs exceeds the dimensions or density of currently existing buildings in the Village of Ridgewood. See Section 4 for further details.

6.4 SCHOOL DISTRICT COSTS

The cost of education is the highest portion of property taxes in the region. This holds true in Ridgewood, where, according to data from the Village Assessor's office, 2015 school district taxes were 65.2% of the total tax assessment as shown in the chart above. Section 4 of this report discussed impacts on the school system in detail.

6.5 CONCLUSION

Even using current average assessment values, each of the development alternatives will yield a net positive tax benefit to the Village, County and the School District, as well as the Library and Open Space jurisdictions. The proposed zoning changes would yield the greatest increase in net assessed value at full build-out as well as the greatest tax yield to the Village and the School District by almost twice that of the highest and best use under current zoning.

Table 47: Summary of Fiscal Impacts

	Scenario A: Existing Zoning, All Commercial	Scenario B: Existing Zoning, Mixed Use	Scenario C: Proposed Zoning, Residential/Mixed Use
Res. Market Rate (SF)	-	75,920	284,532
Res. Affordable (SF)	-	18,980	50,211
Office	74,681	-	-
Retail	46,016	71,534	27,850
Net Buildout Assessment	\$ 21,788,192	\$ 25,925,682	\$ 44,230,833
Total Taxes	\$ 530,107	\$ 630,772	\$ 1,076,136
Village	\$ 118,746	\$ 141,295	\$ 241,058
School District	\$ 345,779	\$ 411,441	\$ 701,943
<i>Inflated Residential Alternative</i>			
New Development Assessment	\$ 21,788,192	\$ 31,474,826	\$ 64,008,353
Total Property Taxes	\$ 530,107	\$ 765,783	\$ 1,557,323
Village	\$ 118,746	\$ 171,538	\$ 348,846
School District	\$ 345,779	\$ 499,505	\$ 1,015,813

Source: Urbanomics, 2016

These revenues should be more than sufficient to cover any marginal costs to community facilities and the school district.

7.0 APPENDIX

Ridgewood Public Schools

Demographic and Utilization Study

ROSS HABER AND ASSOCIATES

November 1, 2015

Introduction

The Ridgewood Public School District has engaged Ross Haber and Associates to provide a demographic and facility utilization study. The purpose of this study is to provide data to the Board of Education regarding the possible implementation of a full day kindergarten program in its elementary schools. Two key issues which will guide this decision are future enrollment and building capacity in terms of available rooms.

Table 1: Summary of Enrollment History and Projections¹

School	2010-11	2015-16	Diff	Percent Change	2020-21	Diff	Percent Change
District	5,753	5,648	-105	-1.83%	5,473	-175	-3.10%
Hawes	408	406	-2	-0.49%	435	29	7.14%
Orchard	343	303	-40	-11.66%	283	-20	-6.60%
Ridge	496	453	-43	-8.67%	441	-12	-2.65%
Somerville	524	430	-94	-17.94%	401	-29	-6.74%
Travell	405	383	-22	-5.43%	380	-3	-0.78%
Willard	489	499	10	2.04%	486	-13	-2.61%

Table 1 is a summary of the enrollment history for the District and for each of the elementary schools. The base year used for the enrollment history was the 2010-11 school year. The calculations were made using the cohort survival method which tracks the enrollment history for each school year from the base year through the current year.² The average growth ratio is calculated as students move from grade to grade. This ratio is then used to calculate the five year projection. This table shows the total District projection (highlighted in yellow) and the projection for each of the schools. From 2010-11 through 2015-15 the total enrollment declined by less than one percent. The projection shows that over the next five years the enrollment is projected to decline by approximately 2.97%. This level of change indicates that there has been stability and that this stability will continue at least through the projection period.

¹ DoesNo

² Appended to this report are the full tables for the District and for each of the elementary schools.

The K-5 enrollment declined from 2,662 in 2010-11 to 2,474 in 2015-16. This is a decline of 188 students or approximately 7%. The enrollment is projected to decline during the next five years by a total of 34 students. This is a marginal decline. The conclusion is that based upon this level of change the District, provided it can find room in the schools, will not be impacted by any great growth or decline during the next five years. This insures sustainability in any plan that is implemented.

One note regarding construction of new residential housing. There is a plan in existence which indicates approximately 250 residential units could be constructed in the downtown Ridgewood area. After consulting with the Ridgewood Town Planner it is clear that this is far from actually happening and certainly not within any reasonable projection period. According to their analysis even if this comes in the 250 units would yield approximately 50 students. If this were to be the case it would amount to approximately 4 students per grade level, and of course that would not happen at one time.³ That being the case this future plan has no impact on this study.

With the exception of Hawes all of the schools show little to moderate enrollment decline during the next five years with Hawes showing moderate growth. In terms of functional capacity of each building it does not appear that based any of the schools will be overcrowded. The only issue that needs to be resolved is the availability of full-sized classroom in each building to accommodate a full day kindergarten.

Facility Utilization

The facility utilization component of the study consisted of several steps. The first step was a review of all of the floor plans of each building. The second was to survey all of the building principals for the purpose of understanding the actual utilization of each instructional space in each school. This also included a walk through with the principals. Following those meetings an analysis of the use of each building. This analysis was then given back to each principal and was followed up with a meeting with Central Administration and each of the elementary school principals.

³ Because we do not have, at this time the floor plans nor the types of units to be constructed we are using the town estimates. However, it is our opinion that this will not impact the District certainly within the time frame of these projections.

The consensus was that at some point in the future it would be possible to initiate a full day kindergarten program. Currently each of the schools has two AM and two PM kindergarten classes using two kindergarten classrooms. To go to a full day program each of the elementary schools would have to have three sections using three rooms with the exception of Willard which would need four sections using four classrooms.⁴ In order to accommodate the full day program there would be a combination of measures which would have to be taken. These are listed:

1. Gain classrooms in some schools by attrition and/or by rooms which are currently open.
2. Close the computer labs to create additional space (a solution universally agreed upon by all principals).
3. Move some programs into different spaces.
4. Remove dividers in some classrooms from which small programs can be relocated.

The following is a summary of the options for each building with a projection as to the number of sections needed with a full day kindergarten. There are some rooms which may require a waiver from the County Office because they do not have lavatories included. Under New Jersey Law waivers can be given if certain conditions are met. These are size of room and the need for an aide or paraprofessional to escort young children to the lavatory if it is not in the classroom. See page 10 for details on waivers.

⁴ See the room utilization tables for both half day and full day kindergarten appended to this report.

Projected Classroom Needs with Full Day Kindergarten

Somerville

Table 2: Somerville Full Day Kindergarten

Somerville						
	1/2 Day	With Full Day Kindergarten				
	Current	2016-17	2017-18	2018-19	2019-20	2020-21
Grade	Rooms	Rooms	Rooms	Rooms	Rooms	Rooms
K	2	3	3	3	3	3
1	4	4	3	3	3	3
2	3	3	3	3	3	3
3	4	4	4	3	3	3
4	4	4	3	4	3	3
5	4	4	4	3	4	3
Total	21	22	20	19	19	18
		(1)	2	1	0	1

Table 1 shows the room requirements for general education classes K - 5 for Somerville Elementary School. Based upon the need for 1 additional kindergarten room (3 full day sections would be needed) there is a need for 1 additional classroom. It appears that under current conditions the only year that there is a short fall is in 2016-17. Room 128 which is 820 square feet and is adjacent to the two current kindergarten rooms would appear by both size and location to be ideal. There also appears to be a lavatory outside of room 121 which might be acceptable for a waiver. Based on the projections the ESL program would have to find alternate space for 2016-17. This might be relocated to one of the smaller classrooms.

Table 3: Travell with Full Day Kindergarten

Travell						
	1/2 Day	With Full Day Kindergarten				
	Current	2016-17	2017-18	2018-19	2019-20	2020-21
Grade	Rooms	Rooms	Rooms	Rooms	Rooms	Rooms
K	2	3	3	3	3	3
1	3	3	3	3	3	3
2	3	3	3	3	3	3
3	3	3	3	3	3	3
4	3	3	3	3	3	3
5	3	3	3	3	3	3
Total	17	18	18	18	18	18
		(1)	(1)	(1)	(1)	(1)

To go to a full day kindergarten program Travell would need to increase from 17 to 18 sections. The projections show that this will hold for the five year projection period. Ideally room 110, which is adjacent to the other two kindergarten classrooms and has a lavatory, would work for this school. At the moment there is a teacher assigned to that room but I am not sure of the program. However, if possible this program could be moved to the Child Study Team Room 218 or to the Computer Room (223). This would mean disbanding the computer room...which it appears that not only this principal but all of the elementary school principals agree should happen given the changed nature of technology and the expanded use of Chrome Books.

Table 4: Willard with Full Day Kindergarten

Willard						
	1/2 Day	With Full Day Kindergarten				
	Current	2016-17	2017-18	2018-19	2019-20	2020-21
Grade	Rooms	Rooms	Rooms	Rooms	Rooms	Rooms
K	2	4	4	4	4	4
1	4	4	4	4	4	4
2	4	4	4	4	4	4
3	4	4	4	4	4	4
4	4	4	4	4	4	4
5	4	4	4	4	4	4
Total	22	24	24	24	24	24
		(2)	(2)	(2)	(2)	(2)

In order to go to full day kindergarten program Willard would need four sections of kindergarten requiring two additional classrooms. This would increase the total number of general education classes from 22 to 24. Rooms 120 and 121 are adjacent to the current kindergarten rooms and have access to lavatories immediately down the corridor. Currently 120 and 121 are grade 1 classrooms. It may be difficult to keep the grade 1 sections in a single wing (or it may require dislocation of other grades if keeping the lower grades in one section is a priority. The rooms which may be subject to changing and could create room are the Computer Lab Room 222 at 928 square feet; the Child Study Team Room 134 at 778 square feet; the Education Specialist Room 217 at 828 square feet. The OT/PT room (117) has only 725 square feet and might not be big enough for a general education class---not be stature, but by practicality.

Table 5: Ridge with Full Time Kindergarten

Ridge						
	1/2 Day	With Full Day Kindergarten				
	Current	2016-17	2017-18	2018-19	2019-20	2020-21
Grade	Rooms	Rooms	Rooms	Rooms	Rooms	Rooms
K	2	3	3	3	3	3
1	4	3	3	4	4	4
2	3	3	4	4	4	4
3	4	3	3	4	4	4
4	4	4	4	3	4	4
5	5	4	4	4	3	4
Total	22	20	21	22	22	23
		2	1	0	0	(1)

Ridge would need one additional section of kindergarten. It appears that there is enough classroom space to accommodate the third kindergarten section however some adjustments might need to be made because of the size of the classrooms. One solution is to move the art room, if possible, to the open room (46) and to make room 34 the third kindergarten room. There appears to be accessibility to a lavatory from that room and it also keeps the kindergarten students in the same wing. Eventually, if another classroom space is needed as indicated long term, the technology lab (computer room) can be disbanded and it can be converted into a general education classroom.

Table 6: Orchard with Full Time Kindergarten

Orchard						
	1/2 Day	With Full Day Kindergarten				
	Current	2016-17	2017-18	2018-19	2019-20	2020-21
Grade	Rooms	Rooms	Rooms	Rooms	Rooms	Rooms
K	2	3	3	3	3	3
1	3	3	3	3	2	3
2	3	2	3	3	3	2
3	3	2	2	3	2	3
4	3	3	2	3	3	2
5	3	2	3	2	2	3
Total	17	15	16	17	15	16
		2	1	0	2	1

In order to have three sections of full day kindergarten there would be a need for an additional classroom. . If possible the music room which has 1,087 square feet and is in the same wing as the two current kindergarten rooms are located would be an ideal space and it does have a lavatory. If the computer lab (117) is shut down it then can be used as a music room (852 square feet).

Table 7: Hawes with Full Time Kindergarten

Hawes						
	1/2 Day	With Full Day Kindergarten				
	Current	2016-17	2017-18	2018-19	2019-20	2020-21
Grade	Rooms	Rooms	Rooms	Rooms	Rooms	Rooms
K	2	3	3	3	3	3
1	3	3	3	3	3	3
2	3	3	3	3	3	3
3	3	3	3	4	4	4
4	4	3	3	4	4	4
5	3	4	3	4	4	4
Total	18	19	18	21	21	21
		(1)	0	(3)	(3)	(3)

Hawes enrollment will grow in the projection by approximately 29 students. This may cause an issue with class size in the long range projection. Room can be created for a full day kindergarten in the following manner. Remove the divider in 119-121 which will create a 961 square foot room with a lavatory and in an area adjacent to the other two kindergarten classrooms. The computer lab in room 134 could be closed and a divider or wall be built for the resource and ESL programs now in rooms 119 and 121. There would only be a single entrance to that room so it might be possible to create a second entrance to the corridor.

Lavatories:

Kindergarten classrooms are required to have lavatories with each room (NJSA 6A:26-41). However in lieu of providing a toilet in each room a facility adjacent to or outside the classroom may be provided if the following criteria are met:

- i. ii. In lieu of providing an individual toilet room in each classroom as required in (h)4i above, toilet rooms may be provided adjacent to or outside the classroom if the following criteria are satisfactorily addressed:
 - (2) No child or group of children shall be left unsupervised at any time when traveling to or from the facilities. Provisions shall be made for adult supervision in a manner that will not infringe upon instructional time;
 - (3) Toilet facilities shall be readily accessible and the toilet room and signage shall be visible to a child from the classroom door;
 - (4) Toilet facilities shall be provided for both boys and girls and shall meet the requirements of (h)4i(4) above
- iii. If a school district chooses to provide toilet rooms adjacent to or outside the classroom in conformance with (h)4ii above, the chief school administrator shall certify to the executive county superintendent on forms prescribed by the Commissioner how the alternate method of compliance shall be addressed. The completed form and a copy of a resolution by the district board of education approving the alternate method of compliance shall be submitted to the executive county superintendent for approval. Thereafter, the chief school administrator annually shall resubmit the form certifying how the alternate method of compliance will be addressed. Any changes to the approved alternate method of compliance shall be submitted to the executive county superintendent for approval;

Room Size: Under new construction class sizes for kindergarten are at a minimum of 950 square feet. However, this can be waived by the County Superintendent. In general the classrooms in Ridgewood are smaller. In adding an additional kindergarten room (for full day kindergarten) it is suggested that the largest rooms available be selected for full day kindergarten.

Projection and Utilization Charts and Tables

Table 8: Ridgewood Enrollment History and Projection

Year	Births		K	1	2	3	4	5	6	7	8	9	10	11	12	K-5	6-8	9-12	Sub Total	PK	Total
2010-11	142	2.70	384	467	421	463	444	483	448	454	459	446	415	400	422	2662	1361	1683	5706	47	5753
2011-12	138	2.59	358	419	475	431	477	453	487	448	451	425	435	412	395	2613	1386	1667	5666	35	5701
2012-13	165	2.31	381	402	450	488	440	481	466	478	449	427	423	427	414	2642	1393	1691	5726	39	5765
2013-14	117	2.86	335	417	425	455	491	444	475	463	479	423	428	428	421	2567	1417	1700	5684	35	5719
2014-15	138	2.59	357	386	426	433	448	491	453	464	470	443	424	429	420	2541	1387	1716	5644	34	5678
2015-16	120	3.01	361	399	392	427	438	459	493	464	464	441	435	420	424	2476	1421	1720	5617	31	5648
		2.67		1.11	1.04	1.02	1.01	1.01	1.01	0.99	1.00	0.94	0.99	0.99							
Year			K	1	2	3	4	5	6	7	8	9	10	11	12	K-5	6-8	9-12	Sub Total	PK	Total PK-12
2016-17	124		358	401	415	400	431	442	464	488	464	436	437	431	416	2447	1416	1720	5583	35	5618
2017-18	124		358	397	417	423	404	435	446	459	488	436	432	433	427	2434	1393	1728	5555	38	5593
2018-19	124		354	397	413	425	427	408	439	442	459	459	432	428	429	2424	1340	1748	5512	38	5550
2019-20	124		358	393	413	421	429	431	412	435	442	431	454	428	424	2445	1289	1737	5471	38	5509
2020-21	124		358	397	409	421	425	433	435	408	435	415	427	449	424	2443	1278	1715	5436	37	5473

Chart 1: Enrollment History and Projection

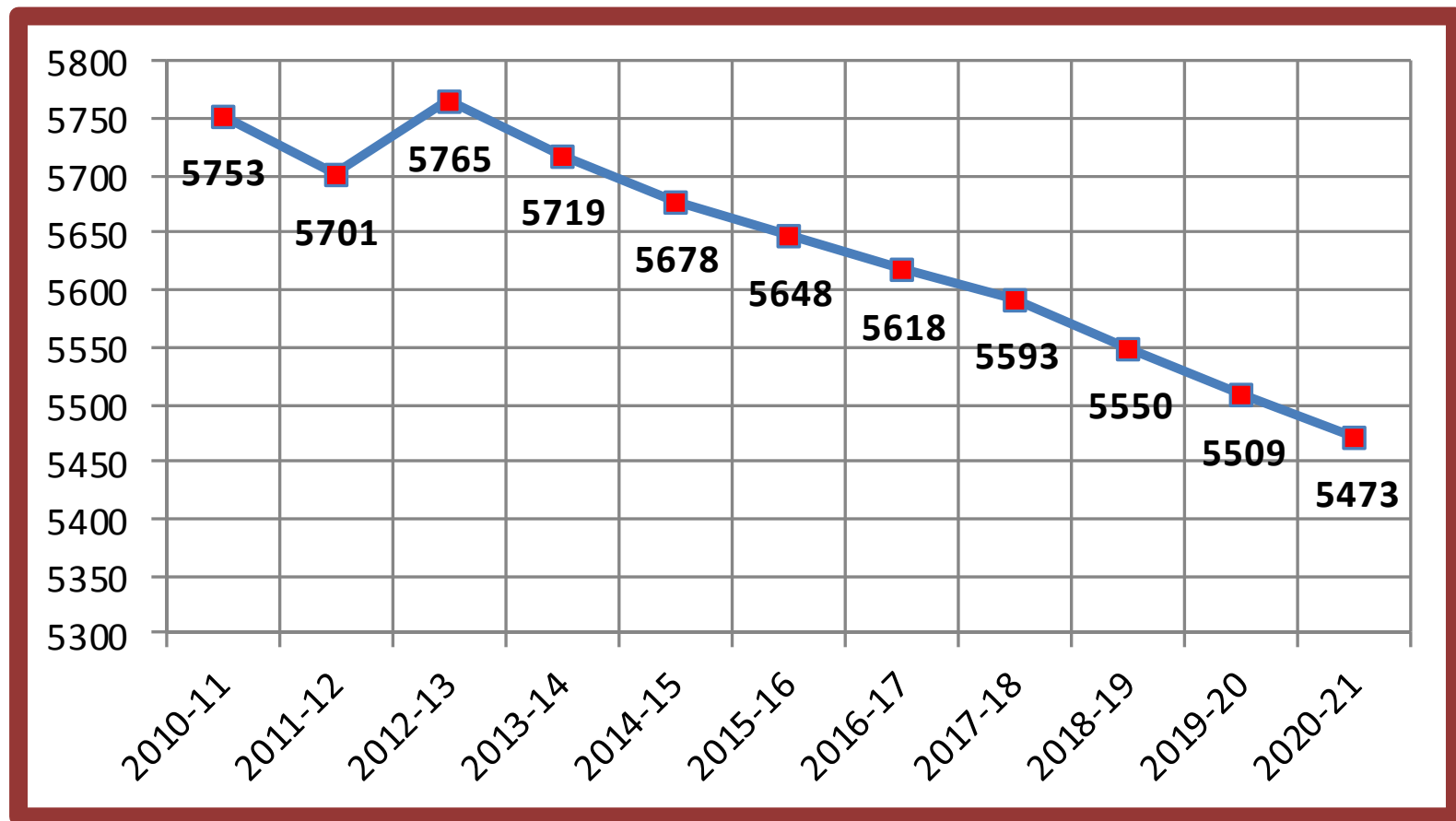


Table 9: Hawes Enrollment History and Projection

Hawes			KG		1		2		3		4		5	K-5	Sp Ed	PK	Total
	Births																
2010-11	142	0.31	44		66		69		72		73		84	408			408
				1.20		1.03		1.07		1.07		1.03					
2011-12	138	0.43	59		53		68		74		77		75	406			406
				1.08		1.15		1.06		1.01		1.03					
2012-13	165	0.37	61		64		61		72		75		79	412			412
				1.08		1.19		1.02		1.04		0.97					
2013-14	117	0.49	57		66		76		62		75		73	409			409
				1.23		1.00		1.01		0.97		1.00					
2014-15	138	0.44	61		70		66		77		60		75	409			409
				1.10		1.01		1.03		0.99		1.07					
2015-16	120	0.50	60		67		71		68		76		64	406			406
		0.45		1.14		1.08		1.04		1.02		1.02					
Year			KG		1		2		3		4		5	K-5	Sp Ed	PK	Total
2016-17	124		60		68		72		74		69		78	421			421
2017-18	124		60		68		73		75		75		70	421			421
2018-19	124		60		68		73		76		77		77	431			431
2019-20	124		60		68		73		76		78		79	434			434
2020-21	124		60		68		73		76		78		80	435			435

Table 11: Hawes Projected Utilization Half Day Kindergarten

Hawes														
2015-16		Rooms	Actual	Average	2016-17		Rooms	Actual	Average	2017-18		Rooms	Actual	Average
		21.00		Class Size			21.00		Class Size			21.00		Class Size
		23.00					23.00					23.00		
KG	60	2.86	2	15	KG	60	2.86	2	15	KG	60	2.86	2	15
1	67	3.19	3	22	1	68	3.24	3	23	1	68	3.24	3	23
2	71	3.38	3	24	2	72	3.13	3	24	2	73	3.48	3	24
3	68	3.24	3	23	3	74	3.52	3	25	3	75	3.57	3	25
4	76	3.30	4	19	4	69	3.00	3	23	4	75	3.26	3	25
5	64	2.78	3	21	5	78	3.39	4	20	5	70	3.04	3	23
Spec Ed			3		Spec Ed					Spec Ed				
PK					PK					PK				
									23					24
	406	13.11	21	21		421	12.89	16			421	13.55	15	
Total Rms			28		Total Rms			28			Total Rms		28	
Rooms GE			19		Rooms GE			18			Rooms GE		17	
Rooms SE			3		Rooms SE			3			Rooms SE		3	
Rooms PK					Rooms PK						Rooms PK			
Total			6		Total			7					8	
2018-19		Rooms	Actual	Average	2019-20		Rooms	Actual	Average	2020-21		Rooms	Actual	Average
		21.00		Class Size			21.00		Class Size			21.00		Class Size
		23.00					23.00					23.00		
KG	60	2.86	2	15	KG	60	2.86	2	15	KG	60	2.86	2	15
1	68	3.24	3	23	1	68	3.24	3	23	1	68	3.24	3	23
2	73	3.48	3	24	2	73	3.48	3	24	2	73	3.48	3	24
3	76	3.62	3	25	3	76	3.62	3	25	3	76	3.62	3	25
4	77	3.35	3	26	4	78	3.39	3	26	4	78	3.39	3	26
5	77	3.35	4	19	5	79	3.43	4	20	5	80	3.48	4	20
Spec Ed					Spec Ed					Spec Ed				
PK					PK					PK				
	431	13.69	18	22		434	13.73	16	22		435	13.73	16	22
Total Rms			28		Total Rms			28		Total Rms			28	
Rooms GE			18		Rooms GE			18		Rooms GE			18	
Rooms SE			3		Rooms SE			3		Rooms SE			3	
Rooms PK					Rooms PK					Rooms PK				
			7					7					7	

Table 12: Hawes Projected Utilization Full Day Kindergarten

Hawes --Full Day														
					2016-17		Rooms	Actual	Average	2017-18		Rooms	Actual	Average
							21.00		Class Size			21.00		Class Size
							23.00					23.00		
					KG	60	2.86	3	20	KG	60	2.86	3	20
					1	68	3.24	3	23	1	68	3.24	3	23
					2	72	3.13	3	24	2	73	3.48	3	24
					3	74	3.52	3	25	3	75	3.57	3	25
					4	69	3.00	3	23	4	75	3.26	3	25
					5	78	3.39	4	20	5	70	3.04	3	23
					Spec Ed					Spec Ed				
					PK					PK				
									23					24
						421	12.89	16			421	13.55	15	
					Total Rms			28			Total Rms		28	
					Rooms GE			19			Rooms GE		18	
					Rooms SE			3			Rooms SE		3	
					Rooms PK						Rooms PK			
					Total			6					7	
2018-19		Rooms	Actual	Average	2019-20		Rooms	Actual	Average	2020-21		Rooms	Actual	Average
		21.00		Class Size			21.00		Class Size			21.00		Class Size
		23.00					23.00					23.00		
KG	60	2.86	3	20	KG	60	2.86	3	20	KG	60	2.86	3	20
1	68	3.24	3	23	1	68	3.24	3	23	1	68	3.24	3	23
2	73	3.48	3	24	2	73	3.48	3	24	2	73	3.48	3	24
3	76	3.62	3	25	3	76	3.62	4	19	3	76	3.62	3	25
4	77	3.35	4	19	4	78	3.39	3	26	4	78	3.39	3	26
5	77	3.35	3	26	5	79	3.43	3	26	5	80	3.48	4	20
Spec Ed					Spec Ed					Spec Ed				
PK					PK					PK				
	431	13.69	19	23		434	13.73	16	23		435	13.73	16	23
Total Rms			28		Total Rms			28		Total Rms			28	
Rooms GE			19		Rooms GE			19		Rooms GE			19	
Rooms SE			3		Rooms SE			3		Rooms SE			3	
Rooms PK					Rooms PK					Rooms PK				
			6					6					6	

Table13: Orchard Enrollment History and Projection

Orchard			KG		1		2		3		4		5	K-5	Sp Ed	PK	Total
	Births																
2010-11	142	0.38	54		61		56		53		61		58	343			343
				0.98		1.02		1.05		1.02		0.98					
2011-12	138	0.34	47		53		62		59		54		60	335			335
				1.09		1.04		1.00		0.97		0.96					
2012-13	165	0.33	55		51		55		62		57		52	332			332
				1.07		0.98		0.96		1.00		0.95					
2013-14	117	0.33	39		59		50		53		62		54	317			317
				1.21		1.03		0.92		1.06		0.98					
2014-15	138	0.30	42		47		61		46		56		61	313			313
				1.05		1.00		0.98		1.04		1.00					
2015-16	120	0.40	48		44		47		60		48		56	303			303
		0.34		1.05		1.01		0.98		1.02		0.97					
Year			KG		1		2		3		4		5	K-5	Sp Ed	PK	Total
2016-17	124		46		50		44		46		61		47	294			294
2017-18	124		46		48		51		43		47		59	294			294
2018-19	124		44		48		48		50		44		46	280			280
2019-20	124		45		46		48		47		51		43	280			280
2020-21	124		46		47		46		47		48		49	283			283

Table 14: Projected Orchard Half Day Kindergarten Utilization

Orchard														
2015-16		Rooms	Actual	Average	2016-17	2016-17	Rooms	Actual	Average	2017-18		Rooms	Actual	Average
		21.00		Class Size			21.00		Class Size			21.00		Class Size
		23.00					23.00					23.00		
KG	48	1.14	1.5	16	KG	46	1.10	1.5	15	KG	46	1.10	1.5	15
1	44	2.10	3	15	1	52	2.48	3	17	1	50	2.38	3	17
2	47	2.24	3	16	2	44	1.91	2	22	2	53	2.52	3	18
3	60	2.86	3	20	3	46	2.19	2	23	3	43	2.05	2	22
4	48	2.09	3	16	4	61	2.65	3	20	4	47	2.04	2	24
5	56	2.43	3	19	5	47	19	2	24	5	59	2.57	3	20
Spec Ed					Spec Ed					Spec Ed				
PK					PK					PK				
									21					20
	303	9.29	16.5	17		296	9.23	12			298	8.99	13	
Total Rms			20		Total Rms			20			Total Rms		20	
Rooms GE			17		Rooms GE			14			Rooms GE		15	
Rooms SE					Rooms SE						Rooms SE			
Rooms PK					Rooms PK						Rooms PK			
Total			3		Total			6					5	
2018-19		Rooms	Actual	Average	2019-20		Rooms	Actual	Average	2020-21		Rooms	Actual	Average
		21.00		Class Size			21.00		Class Size			21.00		Class Size
		23.00					23.00					23.00		
KG	44	1.05	1.5	15	KG	45	1.07	1.5	15	KG	46	1.10	1.5	15
1	50	2.38	3	17	1	48	2.29	2	24	1	49	2.33	3	16
2	51	2.43	3	17	2	51	2.43	3	17	2	48	2.29	2	24
3	52	2.48	3	17	3	50	2.38	2	25	3	50	2.38	3	17
4	44	1.91	2	22	4	53	2.30	3	18	4	51	2.22	2	26
5	46	2.00	2	23	5	43	1.87	2	22	5	51	2.22	3	17
Spec Ed				#DIV/0!			0.00		#DIV/0!			0.00		
PK				#DIV/0!			0.00		#DIV/0!			0.00		
	287	9.20	14.5	19		290	9.40	12	20		295	9.22	13.0	19
Total Rms			20		Total Rms			20		Total Rms			20.0	
Rooms GE			15		Rooms GE			14		Rooms GE			14.5	
Rooms SE					Rooms SE					Rooms SE				
Rooms PK					Rooms PK					Rooms PK				
			5					6					5.5	

Table 15: Projected Orchard Full Day Kindergarten

	Orchard-Full Day													
					2016-17		Rooms	Actual	Average	2017-18		Rooms	Actual	Average
							21.00		Class Size			21.00		Class Size
							23.00					23.00		
					KG	46	1.10	3	15	KG	46	1.10	3	15
					1	52	2.48	3	17	1	50	2.38	3	17
					2	44	1.91	2	22	2	53	2.52	3	18
					3	46	2.19	2	23	3	43	2.05	2	22
					4	61	2.65	3	20	4	47	2.04	2	24
					5	47	19	2	24	5	59	2.57	3	20
					Spec Ed PK					Spec Ed PK				
									21					20
						296	9.23	12			298	8.99	13	
					Total Rms			20			Total Rms		20	
					Rooms GE			15			Rooms GE		16	
					Rooms SE						Rooms SE			
					Rooms PK						Rooms PK			
					Total			5					4	
2018-19		Rooms	Actual	Average	2019-20		Rooms	Actual	Average	2020-21		Rooms	Actual	Average
		21.00		Class Size			21.00		Class Size			21.00		Class Size
		23.00					23.00					23.00		
KG	44	1.05	3	15	KG	45	1.07	3	15	KG	46	1.10	3	15
1	50	2.38	3	17	1	48	2.29	2	24	1	49	2.33	3	16
2	51	2.43	3	17	2	51	2.43	3	17	2	48	2.29	2	24
3	52	2.48	3	17	3	50	2.38	2	25	3	50	2.38	3	17
4	44	1.91	2	22	4	53	2.30	3	18	4	51	2.22	3	17
5	46	2.00	2	23	5	43	1.87	2	22	5	51	2.22	3	17
Spec Ed PK												0.00		
												0.00		
	287	9.20	16	19		290	9.40	12	20		295	9.22	14.0	18
Total Rms			20		Total Rms			20		Total Rms			20.0	
Rooms GE			16		Rooms GE			15		Rooms GE			17.0	
Rooms SE					Rooms SE					Rooms SE				
Rooms PK					Rooms PK					Rooms PK				
			4					5					3.0	

Table 16: Somerville Enrollment History and Projection

Somerville			KG		1		2		3		4		5	K-5	Sp Ed	PK	Total
	Births																
2010-11	142	0.52	74		106		79		95		81		89	524			524
				1.01		0.98		0.96		1.00		0.99					
2011-12	138	0.51	71		75		104		76		95		80	501			501
				1.07		1.09		1.06		1.12		1.03					
2012-13	165	0.39	64		76		82		110		85		98	515			515
				1.11		1.03		1.02		0.95		1.02					
2013-14	117	0.44	52		71		78		84		105		87	477			477
				1.15		1.01		1.03		0.95		0.97					
2014-15	138	0.45	62		60		72		80		80		102	456			456
				1.23		1.03		1.01		1.04		1.01					
2015-16	120	0.46	55		76		62		73		83		81	430			430
		0.45		1.16		1.02		1.02		0.98		1.00					
Year			KG		1		2		3		4		5	K-5	Sp Ed	PK	Total
2016-17	124		61		64		78		63		72		83	421			421
2017-18	124		59		71		65		80		62		72	409			409
2018-19	124		58		68		72		66		78		62	404			404
2019-20	124		59		67		69		73		65		78	411			411
2020-21	124		58		68		68		70		72		65	401			401

Table 17: Projected Somerville Half Day Utilization

Somerville														
2015-16		Rooms	Actual	Average	2016-17	2016-17	Rooms	Actual	Average	2017-18		Rooms	Actual	Average
		21.00		Class Size			21.00		Class Size			21.00		Class Size
		23.00					23.00					23.00		
KG	55	1.31	1.5	18	KG	61	1.45	1.5	20	KG	59	1.40	1.5	20
1	76	3.62	4	19	1	61	2.90	3	20	1	68	3.24	3	23
2	62	2.95	3	21	2	78	3.39	4	20	2	63	3.00	3	21
3	73	3.48	4	18	3	63	3.00	3	21	3	80	3.81	4	20
4	83	3.61	4	21	4	74	3.22	4	19	4	64	2.78	3	21
5	81	3.52	4	20	5	83	29	4	21	5	74	3.22	4	19
Spec Ed					Spec Ed					Spec Ed				
PK					PK					PK				
									20					21
	430	13.66	20.5	20		420	12.51	18			408	12.83	17	
Total Rms			25		Total Rms			25		Total Rms			25	
Rooms GE			21		Rooms GE			20		Rooms GE			19	
Rooms SE					Rooms SE					Rooms SE				
Rooms PK					Rooms PK					Rooms PK				
Total			4		Total			5					6	
2018-19		Rooms	Actual	Average	2019-20	2018-19	Rooms	Actual	Average	2020-21	2018-19	Rooms	Actual	Average
		21.00		Class Size			21.00		Class Size			21.00		Class Size
		23.00					23.00					23.00		
KG	58	1.38	1.5	19	KG	59	1.40	1.5	20	KG	58	1.38	1.5	19
1	65	3.10	3	22	1	64	3.05	3	21	1	65	3.10	3	22
2	70	3.33	3	23	2	67	3.19	3	22	2	66	3.14	3	22
3	64	3.05	3	21	3	71	3.38	3	24	3	68	3.24	3	23
4	81	3.52	4	20	4	65	2.83	3	22	4	72	3.13	3	24
5	64	2.78	3	21	5	81	3.52	4	20	5	65	2.83	3	22
Spec Ed					Spec Ed					Spec Ed				
PK					PK					PK				
	402	13.00	17.5	21		407	12.45	16	22		394	12.61	15	22
Total Rms			25		Total Rms			25		Total Rms		24.00	25	
Rooms GE			18		Rooms GE			18		Rooms GE			17	
Rooms SE					Rooms SE					Rooms SE				
Rooms PK					Rooms PK					Rooms PK				
			7					7					8	

Table 18: Somerville Full Day Utilization

Somerville-Full Day														
					2016-17	2016-17	Rooms	Actual	Average	2017-18		Rooms	Actual	Average
							21.00		Class Size			21.00		Class Size
							23.00					23.00		
					KG	61	1.45	3	20	KG	59	1.40	3	20
					1	61	2.90	3	20	1	68	3.24	3	23
					2	78	3.39	4	20	2	63	3.00	3	21
					3	63	3.00	3	21	3	80	3.81	4	20
					4	74	3.22	4	19	4	64	2.78	3	21
					5	83	29	4	21	5	74	3.22	4	19
					Spec Ed					Spec Ed				
					PK					PK				
									20					21
						420	12.51	18			408	12.83	17	
					Total Rms			25		Total Rms			25	
					Rooms GE			21		Rooms GE			20	
					Rooms SE					Rooms SE				
					Rooms PK					Rooms PK				
					Total			4					5	
2018-19		Rooms	Actual	Average	2019-20	2018-19	Rooms	Actual	Average	2020-21	2018-19	Rooms	Actual	Average
		21.00		Class Size			21.00		Class Size			21.00		Class Size
		23.00					23.00					23.00		
KG	58	1.38	3	19	KG	59	1.40	3	20	KG	58	1.38	3	19
1	65	3.10	3	22	1	64	3.05	3	21	1	65	3.10	3	22
2	70	3.33	3	23	2	67	3.19	3	22	2	66	3.14	3	22
3	64	3.05	3	21	3	71	3.38	3	24	3	68	3.24	3	23
4	81	3.52	4	20	4	65	2.83	3	22	4	72	3.13	3	24
5	64	2.78	3	21	5	81	3.52	4	20	5	65	2.83	3	22
Spec Ed					Spec Ed					Spec Ed				
PK					PK					PK				
	402	13.00	19	21		407	12.45	16	22		394	12.61	15	22
Total Rms			25		Total Rms			25		Total Rms		24.00	25	
Rooms GE			19		Rooms GE			19		Rooms GE			18	
Rooms SE					Rooms SE					Rooms SE				
Rooms PK					Rooms PK					Rooms PK				
			6					6					7	

Table 19: Ridge Enrollment History and Projection

Ridge			KG		1		2		3		4		5	K-5	Sp Ed	PK	Total
	Births																
2010-11	142	0.51	73		86		71		98		79		89	496			496
				1.26		1.05		1.03		1.07		1.10					
2011-12	138	0.38	53		92		90		73		105		87	500			500
				1.36		1.08		1.02		1.04		1.02					
2012-13	165	0.42	69		72		99		92		76		107	515			515
				1.23		1.01		1.06		1.04		1.07					
2013-14	117	0.48	56		85		73		105		96		81	496			496
				1.25		0.96		1.01		0.93		0.99					
2014-15	138	0.49	68		70		82		74		98		95	487			487
				0.97		1.01		1.04		0.99		0.99					
2015-16	120	0.51	61		66		71		85		73		97	453			453
				1.18		1.02		1.03		1.01		1.03					
Year			KG		1		2		3		4		5	K-5	Sp Ed	PK	Total
2016-17	124		61		72		67		73		86		75	434			434
2017-18	124		63		72		73		69		74		89	440			440
2018-19	124		62		74		73		75		70		76	430			430
2019-20	124		63		73		75		75		76		72	434			434
2020-21	124		62		74		74		77		76		78	441			441

Table 20: Ridge Projected Half Day Utilization

Ridge														
2015-16		Rooms	Actual	Average	2016-17	2016-17	Rooms	Actual	Average	2017-18		Rooms	Actual	Average
		21.00		Class Size			21.00		Class Size			21.00		Class Size
		23.00					23.00					23.00		
KG	61	2.90	1.5	20	KG	61	2.90	1.5	20	KG	63	3.00	1.5	21
1	66	3.14	4	17	1	74	3.52	4	19	1	74	3.52	4	19
2	71	3.38	3	24	2	67	2.91	3	22	2	75	3.57	4	19
3	85	4.05	4	21	3	73	3.48	3	24	3	69	3.29	3	23
4	73	3.17	4	18	4	86	3.74	4	22	4	74	3.22	4	19
5	97	4.22	5	19	5	75	3.26	4	19	5	89	3.87	4	22
Spec Ed					Spec Ed					Spec Ed				
PK					PK					PK				
									21					20
	453	13.74	21.5	20		436	13.65	18			444	13.60	19	
Total Rms			31		Total Rms			31			Total Rms		31	
Rooms GE			22		Rooms GE			20			Rooms GE		21	
Rooms SE					Rooms SE						Rooms SE			
Rooms PK					Rooms PK						Rooms PK			
Total			9.0		Total			11.0			Total		10.0	
2018-19		Rooms	Actual	Average	2019-20	2018-19	Rooms	Actual	Average	2020-21	2018-19	Rooms	Actual	Average
		21.00		Class Size			21.00		Class Size			21.00		Class Size
		23.00					23.00					23.00		
KG	62	2.95	1.5	21	KG	63	3.00	1.5	21	KG	62	2.95	1.5	21
1	76	3.62	4	19	1	75	3.57	4	19	1	76	3.62	4	19
2	75	3.57	4	19	2	78	3.71	4	20	2	77	3.67	4	19
3	77	3.67	4	19	3	77	3.67	4	19	3	80	3.81	4	20
4	70	3.04	3	23	4	78	3.39	4	20	4	78	3.39	4	20
5	76	3.30	4	19	5	72	3.13	3	24	5	80	3.48	4	20
Spec Ed					Spec Ed					Spec Ed				
PK					PK					PK				
	436	13.90	20.5	20		443	14.34	19	21		453	14.49	20	20
Total Rms			31		Total Rms			31		Total Rms			31	
Rooms GE			21		Rooms GE			21		Rooms GE			22	
Rooms SE					Rooms SE					Rooms SE				
Rooms PK					Rooms PK					Rooms PK				
Total			10.0		Total			10.0		Total			9.0	

Table 22: Ridge Projected Full Day Utilization

Ridge-Full Day														
					2016-17	2016-17	Rooms	Actual	Average	2017-18		Rooms	Actual	Average
							21.00		Class Size			21.00		Class Size
							23.00					23.00		
					KG	61	2.90	3	20	KG	63	3.00	3	21
					1	74	3.52	3	25	1	74	3.52	3	25
					2	67	2.91	3	22	2	75	3.57	4	19
					3	73	3.48	3	24	3	69	3.29	3	23
					4	86	3.74	4	22	4	74	3.22	4	19
					5	75	3.26	4	19	5	89	3.87	4	22
					Spec Ed					Spec Ed				
					PK					PK				
									22					22
	0	0.00	0	0		436	13.65	17			444	13.60	18	
Total Rms			31		Total Rms			31		Total Rms			31	
Rooms GE			0		Rooms GE			20		Rooms GE			21	
Rooms SE					Rooms SE					Rooms SE				
Rooms PK					Rooms PK					Rooms PK				
Total			31.0		Total			11.0		Total			10.0	
2018-19		Rooms	Actual	Average	2019-20	2018-19	Rooms	Actual	Average	2020-21	2018-19	Rooms	Actual	Average
		21.00		Class Size			21.00		Class Size			21.00		Class Size
		23.00					23.00					23.00		
KG	62	2.95	3	21	KG	63	3.00	3	21	KG	62	2.95	3	21
1	76	3.62	4	19	1	75	3.57	4	19	1	76	3.62	4	19
2	75	3.57	4	19	2	78	3.71	4	20	2	77	3.67	4	19
3	77	3.67	4	19	3	77	3.67	4	19	3	80	3.81	4	20
4	70	3.04	3	23	4	78	3.39	4	20	4	78	3.39	4	20
5	76	3.30	4	19	5	72	3.13	3	24	5	80	3.48	4	20
Spec Ed					Spec Ed					Spec Ed				
PK					PK					PK				
	436	13.90	22	20		443	14.34	19	21		453	14.49	20	20
Total Rms			31		Total Rms			31		Total Rms			31	
Rooms GE			22		Rooms GE			22		Rooms GE			23	
Rooms SE					Rooms SE					Rooms SE				
Rooms PK					Rooms PK					Rooms PK				
Total			9.0		Total			9.0		Total			8.0	

Table 23: Travell Enrollment History and Projection

Travell			KG		1	2	3	4		5	K-5	Sp Ed	PK	Total
	Births													
2010-11	142	0.44	62		63	68	66	74		72	405			405
				1.00	1.02	0.99	1.05	0.99						
2011-12	138	0.43	59		62	64	67	69		73	394			394
				1.05	1.00	0.98	0.99	0.97						
2012-13	165	0.30	49		62	62	63	66		67	369			369
				1.02	1.02	1.03	1.02	1.02						
2013-14	117	0.45	53		50	63	64	64		67	361			361
				1.09	1.10	1.08	1.03	1.05						
2014-15	138	0.46	64		58	55	68	66		67	378			378
				1.08	1.05	0.93	1.03	1.06						
2015-16	120	0.52	62		69	61	51	70		70	383			383
				1.05	1.04	1.00	1.02	1.02						
Year			KG		1	2	3	4		5	K-5	Sp Ed	PK	Total
2016-17	124		57		65	72	61	52		71	378			378
2017-18	124		57		60	68	72	62		53	372			372
2018-19	124		59		61	64	64	64		67	379			379
2019-20	124		60		62	63	64	65		65	379			379
2020-21	123		59		63	64	63	65		66	380			380

Table 24: Travell Projected Half Day Utilization

Travell														
2015-16		Rooms	Actual	Average	2016-17	2016-17	Rooms	Actual	Average	2017-18		Rooms	Actual	Average
		21.00		Class Size	21.00		21.00		Class Size	21.00		21.00		Class Size
		23.00			23.00		23.00			23.00		23.00		
KG	62	1.48	1.5	21	KG	57	1.36	1.5	19	KG	57	1.36	1.5	19
1	69	3.29	3.0	23	1	65	3.10	3	22	1	60	2.86	3	20
2	61	2.90	3.0	20	2	72	3.13	3	24	2	68	3.24	3	23
3	51	2.43	3.0	17	3	61	2.90	3	20	3	72	3.43	3	24
4	70	3.04	3.0	23	4	52	2.26	3	17	4	62	2.70	3	21
5	70	3.04	3.0	23	5	71	23	3	24	5	53	2.30	3	18
Spec Ed					Spec Ed					Spec Ed				
PK					PK					PK				
									21					21
	383	11.66	16.5	21		378	11.39	16.5			372	12.23	16.5	
Total Rms			25					25					25	
Rooms GE			16.5		Rooms GE			16.5			Rooms GE		16.5	
Rooms SE					Rooms SE						Rooms SE			
Rooms PK					Rooms PK						Rooms PK			
Total			8.5		Total			8.5					8.5	
2018-19		Rooms	Actual	Average	2019-20	2018-19	Rooms	Actual	Average	2020-21	2018-19	Rooms	Actual	Average
		21.00		Class Size			21.00		Class Size			21.00		Class Size
		23.00					23.00					23.00		
KG	59	1.40	1.5	20	KG	60	1.43	1.5	20	KG	59	1.40	1.5	20
1	61	2.90	3	20	1	62	2.95	3	21	1	63	3.00	3	21
2	64	3.05	3	21	2	63	3.00	3	21	2	64	3.05	3	21
3	64	3.05	3	21	3	64	3.05	3	21	3	63	3.00	3	21
4	64	2.78	3	21	4	65	2.83	3	22	4	65	2.83	3	22
5	67	2.91	3	22	5	65	2.83	3	22	5	66	2.87	3	22
Spec Ed					Spec Ed					Spec Ed				
PK					PK					PK				
	379	11.78	16.5	21		379	11.83	16.5	21		380	11.88	16.5	21
			25					25					25	
Rooms GE			16.5		Rooms GE			16.5		Rooms GE			16.5	
Rooms SE					Rooms SE					Rooms SE				
Rooms PK					Rooms PK					Rooms PK				
			8.5					8.5					8.5	

Table 25: Travell Projected Full Day Utilization

Travell-Full Day														
					2016-17	2016-17	Rooms	Actual	Average	2017-18		Rooms	Actual	Average
					21.00		21.00		Class Size	21.00		21.00		Class Size
					23.00		23.00			23.00		23.00		
					KG	57	1.36	3	19	KG	57	1.36	3	19
					1	65	3.10	3	22	1	60	2.86	3	20
					2	72	3.13	3	24	2	68	3.24	3	23
					3	61	2.90	3	20	3	72	3.43	3	24
					4	52	2.26	3	17	4	62	2.70	3	21
					5	71	23	3	24	5	53	2.30	3	18
					Spec Ed					Spec Ed				
					PK					PK				
									21					21
						378	11.39	18			372	12.23	18	
								25					25	
					Rooms GE			18.0			Rooms GE		18.0	
					Rooms SE						Rooms SE			
					Rooms PK						Rooms PK			
					Total			7.0					7.0	
2018-19		Rooms	Actual	Average	2019-20	2018-19	Rooms	Actual	Average	2020-21	2018-19	Rooms	Actual	Average
		21.00		Class Size			21.00		Class Size			21.00		Class Size
		23.00					23.00					23.00		
KG	59	1.40	3	20	KG	60	1.43	3	20	KG	59	1.40	3	20
1	61	2.90	3	20	1	62	2.95	3	21	1	63	3.00	3	21
2	64	3.05	3	21	2	63	3.00	3	21	2	64	3.05	3	21
3	64	3.05	3	21	3	64	3.05	3	21	3	63	3.00	3	21
4	64	2.78	3	21	4	65	2.83	3	22	4	65	2.83	3	22
5	67	2.91	3	22	5	65	2.83	3	22	5	66	2.87	3	22
Spec Ed					Spec Ed					Spec Ed				
PK					PK					PK				
	379	11.78	18	21		379	11.83	18	21		380	11.88	18	21
			25					25					25	
Rooms GE			18.0		Rooms GE			18.0		Rooms GE			18.0	
Rooms SE					Rooms SE					Rooms SE				
Rooms PK					Rooms PK					Rooms PK				
			7.0					7.0					7.0	

Table 26: Willard Enrollment History and Projection

Willard			KG		1		2		3		4		5	K-5	Sp Ed	PK	Total
	Births																
2010-11	142	0.54	77		85		78		79		76		91	486			486
				1.09		1.02		1.05		0.97		1.03					
2011-12	138	0.50	69		84		87		82		77		78	477			477
				1.12		1.08		1.02		0.99		1.01					
2012-13	165	0.50	83		77		91		89		81		78	499			499
				1.04		1.10		0.96		1.00		1.01					
2013-14	117	0.67	78		86		85		87		89		82	507			507
				1.04		1.05		1.04		1.01		1.02					
2014-15	138	0.43	60		81		90		88		88		91	498			498
				1.27		0.99		1.00		1.00		1.03					
2015-16	120	0.62	74		76		80		90		88		91	499			499
				1.07		1.05		1.01		0.99		1.02					
Year			KG		1		2		3		4		5	K-5	Sp Ed	PK	Total
2016-17	124		73		79		80		81		89		90	492			492
2017-18	124		74		78		83		81		80		91	487			487
2018-19	124		72		80		84		86		88		90	500			500
2019-20	124		71		77		84		85		85		90	492			492
2020-21	124		73		76		81		85		84		87	486			486

Table 27: Willard Projected Half Day Utilization

Willard														
2015-16		Rooms	Actual	Average	2016-17	2016-17	Rooms	Actual	Average	2017-18		Rooms	Actual	Average
		21.00		Class Size			21.00		Class Size			21.00		Class Size
		23.00					23.00					23.00		
KG	74	1.76	2	19	KG	73	3.48	1.5	24	KG	74	3.52	1.5	25
1	76	3.62	4	19	1	79	3.76	4	20	1	78	3.71	3	26
2	80	3.81	4	20	2	80	3.48	4	20	2	83	3.95	4	21
3	90	4.29	4	23	3	81	3.86	4	20	3	81	3.86	4	20
4	88	3.83	4	22	4	89	3.87	4	22	4	80	3.48	4	20
5	91	3.96	4	23	5	90	24	4	23	5	91	3.96	4	23
Spec Ed					Spec Ed					Spec Ed				
PK					PK					PK				
									21					22
	499	15.55	22	21		492	14.97	20			487	15.00	19	
Total Rms			27		Total Rms			27			Total Rms		27	
Rooms GE			22		Rooms GE			22			Rooms GE		21	
Rooms SE					Rooms SE						Rooms SE			
Rooms PK					Rooms PK						Rooms PK			
Total			5.0		Total			5.0			Total		6.0	
2018-19		Rooms	Actual	Average	2019-20		Rooms	Actual	Average	2020-21		Rooms	Actual	Average
		21.00		Class Size			21.00		Class Size			21.00		Class Size
		23.00					23.00					23.00		
KG	72	3.43	1.5	24	KG	71	3.38	1.5	24	KG	73	3.48	1.5	24
1	80	3.81	3	27	1	77	3.67	3	26	1	76	3.62	3	25
2	84	4.00	3	28	2	84	4.00	3	28	2	81	3.86	3	27
3	86	4.10	4	22	3	85	4.05	4	21	3	85	4.05	3	28
4	88	3.83	4	22	4	85	3.70	4	21	4	84	3.65	3	28
5	90	3.91	4	23	5	90	3.91	4	23	5	87	3.78	3	29
Spec Ed					Spec Ed					Spec Ed				
PK					PK					PK				
	500	15.74	19.5	24		492	15.42	18	24		486	15.18	15	27
Total Rms			27		Total Rms			27		Total Rms			27	
Rooms GE			20		Rooms GE			20		Rooms GE			17	
Rooms SE					Rooms SE					Rooms SE				
Rooms PK					Rooms PK					Rooms PK				
Total			7.0		Total			7.0		Total			10.0	

Table 28: Willard Projected Full Day Utilization

Willard-Full Day														
					2016-17	2016-17		Actual	Average	2017-18		Rooms	Actual	Average
							21.00		Class Size			21.00		Class Size
							23.00					23.00		
					KG	73	3.48	4	18	KG	74	3.52	4	19
					1	79	3.76	4	20	1	78	3.71	4	20
					2	80	3.48	4	20	2	83	3.95	4	21
					3	81	3.86	4	20	3	81	3.86	4	20
					4	89	3.87	4	22	4	80	3.48	4	20
					5	90	24	4	23	5	91	3.96	4	23
					Spec Ed					Spec Ed				
					PK					PK				
									21					21
						492	14.97	20			487	15.00	20	
					Total Rms			27			Total Rms		27	
					Rooms GE			24			Rooms GE		24	
					Rooms SE						Rooms SE			
					Rooms PK						Rooms PK			
					Total			3.0			Total		3.0	
2018-19	Rooms	Actual	Average		2019-20		Rooms	Actual	Average	2020-21		Rooms	Actual	Average
	21.00		Class Size				21.00		Class Size			21.00		Class Size
	23.00						23.00					23.00		
KG	72	3.43	4	18	KG	71	3.38	4	18	KG	73	3.48	4	18
1	80	3.81	4	20	1	77	3.67	4	19	1	76	3.62	4	19
2	84	4.00	4	21	2	84	4.00	4	21	2	81	3.86	4	20
3	86	4.10	4	22	3	85	4.05	4	21	3	85	4.05	4	21
4	88	3.83	4	22	4	85	3.70	4	21	4	84	3.65	4	21
5	90	3.91	4	23	5	90	3.91	4	23	5	87	3.78	3	29
Spec Ed					Spec Ed					Spec Ed				
PK					PK					PK				
	500	15.74	24	21		492	15.42	20	21		486	15.18	19	21
Total Rms			27		Total Rms			27		Total Rms			27	
Rooms GE			24		Rooms GE			24		Rooms GE			23	
Rooms SE					Rooms SE					Rooms SE				
Rooms PK					Rooms PK					Rooms PK				
Total			3.0		Total		31	3.0		Total			4.0	

Table 29: Current Room Utilization all Elementary Schools

Somerville			Travell			Willard			Orchard School			Hawes			Ridge		
Grade/Program	Room #	Size sq/ft	Grade/Program	Room #	Size sq/ft	Grade/Program	Room #	Size sq/ft	Grade/Program	Room #	Size sq/ft	Grade/Program	Room #	Size sq/ft	Grade/Program	Room #	Size sq/ft
Kindergarten	102	1,008	Kindergarten	111	925	Kindergarten	119	1,127	Kindergarten	100	1,160	Kindergarten	126	1106	Kindergarten	60	
Kindergarten	101	1,008	Kindergarten	112	925	Kindergarten	118	1,118	Kindergarten	102	1,160	Kindergarten	126	1106	Kindergarten	59	
1st	104	788	1st	127	849	1st	115	796	1st	119	852	1st	105	783	1st	39	
1st	103	796	1st	128	793	1st	120	807	1st	120	789	1st	107	783	1st	37	
1st	106	788	1st	129	793	1st	121	800	1st	121	852	1st	108	804	1st	35	
1st	105	788	2nd	115	773	1st	116	796	2nd	125	787	2nd	106	804	1st	34	
2nd	109	815	2nd	116	773	2nd	122	780	2nd	123	847	2nd	110	788	2nd	49	
2nd	112	805	2nd	117	778	2nd	113	788	2nd	124	831	2nd	140	803	2nd	48	
2nd	110	811	3rd	121	801	2nd	108	820	3rd	209	831	3rd	112	777	2nd	47	
3rd	118	734	3rd	120	802	2nd	114	706	3rd	208	787	3rd	113	776	3rd	10	
3rd	116	691	3rd	118	826	3rd	130	750	3rd	210	847	3rd	117	760	3rd	12	
3rd	119	715	4th	208	809	3rd	127	645	4th	205	789	4th	111	767	3rd	11	
3rd	117	663	4th	224	773	3rd	103	728	4th	204	852	4th	138	745	3rd	13	
4th	206	811	4th	205	778	3rd	102	742	4th	206	852	4th	139	721	4th	24	
4th	204	804	5th	217	793	4th	106	710	5th	200	816	4TH	141	740	4th	14	
4th	202	804	5th	216	793	4th	107	716	5th	202	816	5th	123	736	4th	17	
4th	201	201	5th	209	824	4th	104	734	5th	201	816	5th	127	825	4th	20	
5th	210	758	5th	130	802	4th	105	789	Count K-5	17		5th	132	767	5th	29	
5th	205	795	Count K-5	18		5th	216	845				Count K-5	18		5th	18	
5th	208	805	Music Room	132	968	5th	215	845	Music	102	1,087				5th	19	
5th	207	815	Computer	223	782	5th	214	845	Art	114	985	Art	109	912	5th	21	
Count K-5	21		Art	203	773	5th	213	895	Technology Lab	117	852	Computer	134	745	5th	23	
Instrumental	B 2	829	CST	218	841	Count K-5	22					Music	95	880	Count K-5	22	
OT/PT	BSMT	323	Fac Work Rm	204	773	Computer Lab	222	928				LLD	99	975	Music	44	
Art	115	605	Resource	215	849	OT/PT	117	725				SAIL	98	1126	Art	54	
Vocal Music	119	715				Ed Specialist	217	825				Open	133	779	Resource	36	
Science Lab	114	758				Self Cont	111	844				Resource	135	774	BSI	38	
Faculty	108	611				Self Cont	133	133				LLD	129	817	Technology	15	
ESL	128	820				CST	134	778				Resource	115	767	Rise K-1	41	
						Art	131	955				Res/ESL/Sped	119-121	961	Rise 2-3	42	
						Vocal Music	129	750				Resource	116	770	Rise 4-5	40	
						Resource	B2	852	c						Open	46	
						Resource	B1	657									

Table 29 shows the current room utilization for all elementary schools. The yellow highlights indicate rooms which could be used, repurposed or relocated for full day kindergarten classes. All schools would require 3 rooms except for Willard which would require 4 kindergarten rooms for a full day program.