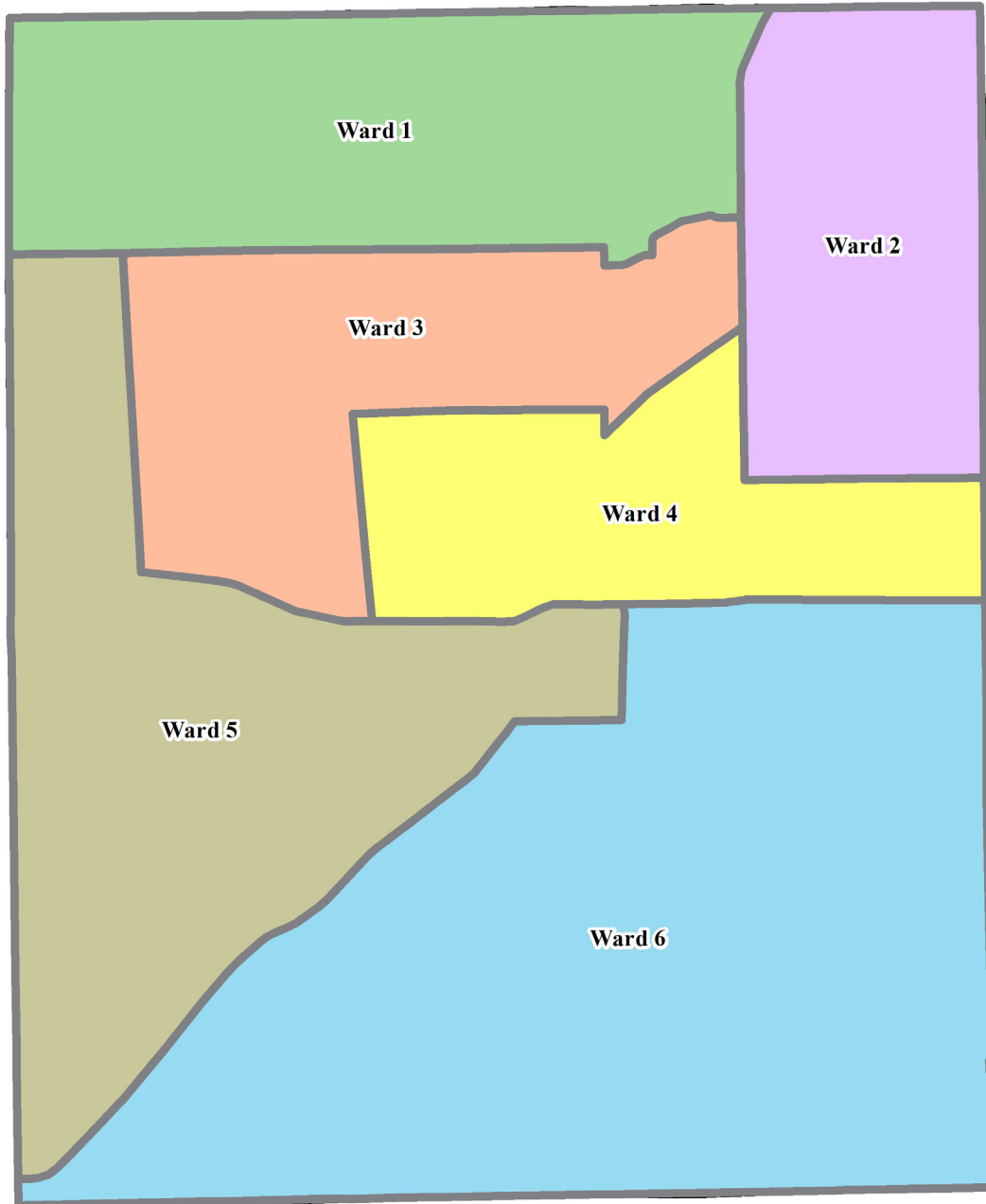


CITY OF NORTH ROYALTON

Council Redistricting Study, 2022



Submitted by:
Cuyahoga County Planning Commission
June 2nd, 2022



CUYAHOGA COUNTY PLANNING COMMISSION

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OUR MISSION

The Cuyahoga County Planning Commission's mission is to inform and provide services in support of the short and long term comprehensive planning, quality of life, environment, and economic development of Cuyahoga County and its cities, villages and townships.

Introduction:

The Cuyahoga County Planning Commission (CCPC) has completed an analysis of population in each of the City's six Council Wards to determine if changes are required per the City Charter (provided in 2010):

Not later than February 28, 1979, the then incumbent Council shall by ordinance establish six (6) wards for election purposes, each of which shall be as nearly equal in population to each of the others as shall be practicable. Each ward shall be composed of contiguous and compact territory within the Municipality bounded by street lines and natural boundaries. Such equality of population shall be maintained by the Council by an adjustment of such boundaries as follows: Each four (4) years, commencing in the year of 1978, the Council shall make or cause to be made a survey of the population changes in the respective wards and enter a written report thereof upon its journal. In the event such survey discloses a decrease or an increase of population amounting to fifteen percent (15%) or more in any ward, an equalizing adjustment of boundaries shall be made by an ordinance of Council. Equalizing adjustments of boundaries may be made at more frequent intervals, if desired by Council, but no adjustment shall be effective with respect to any Municipal election unless the ordinance providing for such adjustment has been passed and publication or posting thereof has been completed at least ninety (90) days prior to the last date for filing nominating petitions for candidates in such election.

Methodology:

To establish accurate ward population estimates, County Planning started with the U.S. Census Bureau's population figures from the 2020 decennial census.

Using the census geography as a base, we are able to divide the city and its wards into 177 "block" units generally bounded by street centerlines and other physical features.

As with previous redistricting estimates, updates to the current year were estimated by using residential building occupancy and demolition permits provided by the city, covering the period from April, 2020 through April, 2022. The Census Bureau estimates average single-family household size in North Royalton at 2.26 persons. From that, each demolition is then estimated at -2.26 personans, and each occupancy permit is estimated at +2.26 persons.

Findings:

2022 Population Estimates by Ward:

Table 1, below, lays out the components of the 2022 population estimates by Ward. Using the above techniques, the City's overall population was found to be relatively stable since the last estimate, increasing from an estimated 30,985 in 2017 to approximately 31,453 in 2022, an increase of 468 persons, or 0.52%.

In total, 71 new residential occupancy permits were issued across the city during the two-year period for an estimated added population of 160 persons. Demolitions led to an estimated loss of 27 persons.

On a per-ward basis, population changes ranged from -4.6% in Ward 2 to +6.3% in Ward 3.

Since the population change in any one ward does not exceed 15%, an “equalizing adjustment of boundaries,” as stated in the charter is not required. Some changes may, however, be desired to achieve a more balanced representation among the wards, since wards can gradually grow out of balance from one another.

Table 1: Population Change by Ward, 2017-2022

		Components of Population Change								
			Occupance Permits 2020-2021		Demolitions 2020-2021		Estimated Population 2021		Estimated Change 2017-2021	
Ward	2017 Popula- tion	2020 Popula- tion	Housing Units	Estimated Popula- tion	Housing Units	Estimated Popula- tion	Popula- tion	Percent of City Total	Popula- tion	Percent
1	4,473	4,479	7	15.82	3	-6.78	4,489	14.3%	16	0.37%
2	4,547	4,335	5	11.3	3	-6.78	4,339	13.8%	-208	-4.58%
3	5,326	5,658	3	6.78	1	-2.26	5,662	18.0%	336	6.30%
4	4,983	5,209	32	72.32	2	-4.52	5,276	16.8%	293	5.87%
5	5,988	6,040	10	22.6	1	-2.26	6,060	19.3%	72	1.20%
6	5,667	5,601	14	31.64	2	-4.52	5,627	17.9%	-40	-0.70%
Total	30,985	31,322	71	160.46	12	-27.12	31,453	100.0%	468	0.52%

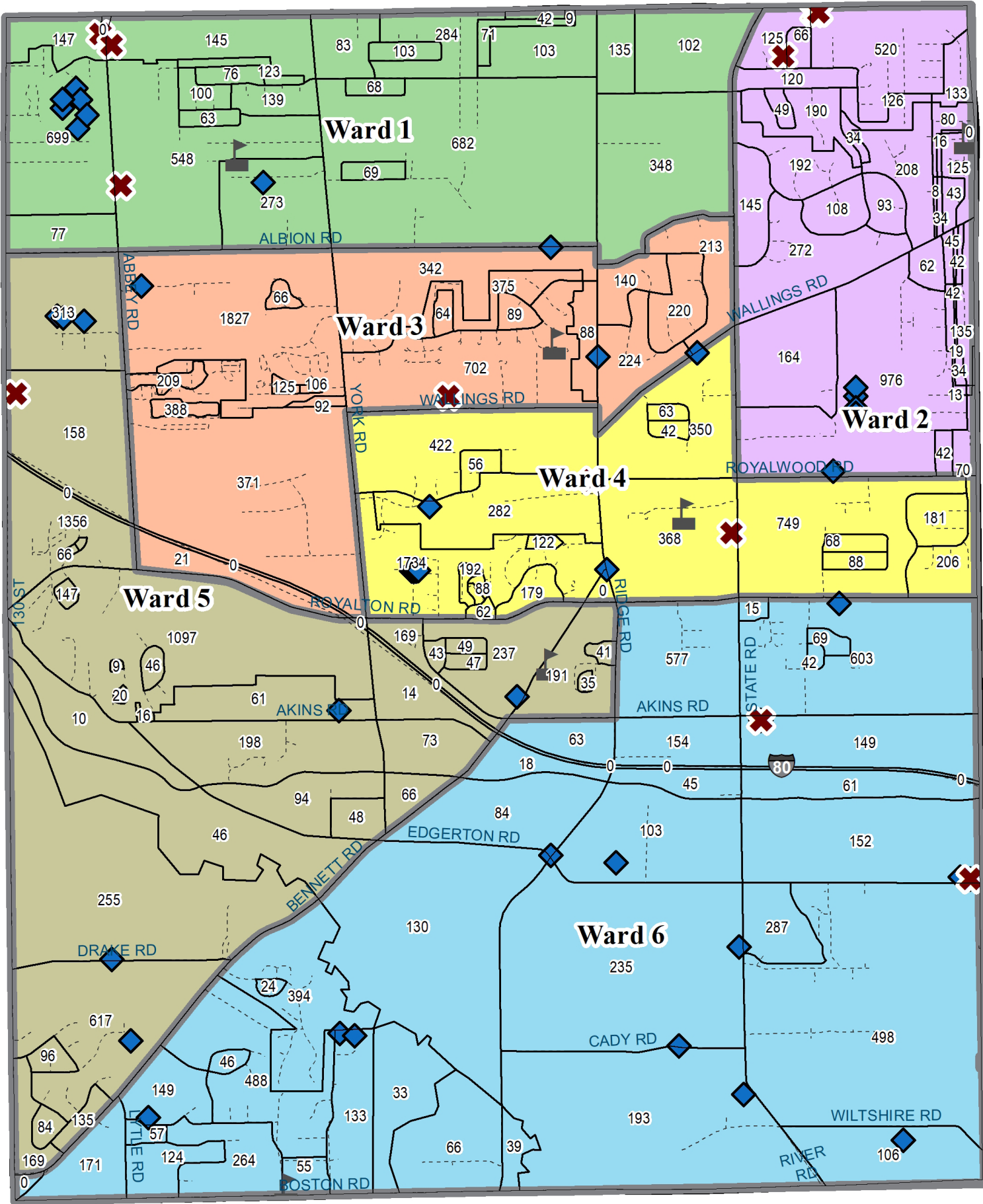
2020 Population from U.S. Census.

New Construction and Demolition figures were based on occupancy and demolition permits issued by the City of North Royalton from April 2020 through 5/12/2022. Associated population was estimated at 2.26 persons per unit for single-family units, using North Royalton average household size cited in U.S. Census Bureau's American Community Survey, 5-Year Estimates Detailed Tables (2020)

A more detailed review of the City's estimated 2022 population estimates by individual ward shows a range in population shares from a low 13.8% (Ward 2) to a high of 19.35 (Ward 5), a range of 5.5%.

Figure 1 (following page) shows the City's existing ward boundaries, together with locations of residential occupancy and demolition permits since the 2020 census. In addition, the map indicates 2022 population estimates within each of the city's 177 census blocks. At the bottom of the map is a bar graph showing population by ward, with a reference line for an “ideal population” per ward (1/6th of the city's total population). This map style will be repeated for the various alternatives presented later in this report.

FIGURE 1. Existing Ward Population Estimates



Legend

Existing Wards

By Census Blocks

1

2

3

4

5

6

Ward Boundary


Council Person

Demolition

Occupancy Permit


Estimated Current Ward Population

	1	2	3	4	5	6
Ward Population	4,489	4,339	5,662	5,276	6,060	5,627
Ideal Population	5,242	5,242	5,242	5,242	5,242	5,242

County Planning

CUYAHOGA COUNTY

PLANNING COMMISSION



CITY OF NORTH ROYALTON

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Comparison to Other Communities:

The city charter's requirement for adjustments to ward boundaries relies on a large population change (15%) from the previous period in any one ward. As such, the charter does not consider more gradual population changes that might accumulate over several years. Theoretically, one or more wards could grow steadily, other wards may lose population, and an adjustment might never be mandated by the charter.

To understand how reasonable North Royalton's population distribution is among its wards, North Royalton was compared with other communities in Cuyahoga County. For comparability, we tabulated population from the 2020 Census for the 33 communities in Cuyahoga County that have ward-based representation (the remaining 26 communities in the county have only "at-large" representation). For this comparative analysis, we did not include other population sources such as building permits for the other communities, as we do for North Royalton's 2022 estimated population.

One measure for comparing communities' ward representation is the spread, or "range", between ward's with the highest and lowest proportion of population. As noted earlier, North Royalton's lowest proportion is 13.8% (Ward 2) and its highest is 19.3% (Ward 5), a range of 5.5%. By this measure, North Royalton ranks in the top third (10th highest) among the 33 communities in terms of range. The difference among many of those communities, however, is very small. See Table 2.

In conclusion, we find that the distribution of population among North Royalton's six wards is not unreasonable in comparison with other communities in Cuyahoga County, however there is room for improvement.

Table 2.
Ward Population Shares in Communities with Ward-Based Representation, Cuyahoga County, 2020

City	Ideal proportions		Range Measures					
	Number of Wards	Ideal Share	MIN	MAX	Actual Minimum Share	Actual Maximum Share	Min-Max Range	Rank
Bedford	4	25.0%	1887	3828	17.1%	34.7%	17.6%	1
Cleveland	5	20.0%	6502	13199	14.3%	29.1%	14.8%	2
East Cleveland	3	33.3%	4088	5565	29.6%	40.3%	10.7%	3
Berea	5	20.0%	3208	5159	17.3%	27.8%	10.5%	4
Middleburg Heights	4	25.0%	3163	4784	19.8%	29.9%	10.1%	5
Bedford Heights	6	16.7%	1830	2980	13.9%	22.7%	8.7%	6
Oakwood	5	20.0%	606	913	17.0%	25.6%	8.6%	7
Mayfield	4	25.0%	749	1015	22.3%	30.2%	7.9%	8
Warrensville Heights	7	14.3%	1558	2454	11.3%	17.8%	6.5%	9
Glenwillow	3	33.3%	306	365	30.8%	36.7%	5.9%	10
North Royalton*	6	16.7%	4335	6040	13.795%	19.267%	5.5%	11
Bay Village	4	25.0%	3653	4513	22.6%	27.9%	5.3%	12
South Euclid	4	25.0%	4865	5965	22.2%	27.3%	5.0%	13
Broadview Heights	4	25.0%	4504	5428	22.6%	27.2%	4.6%	14
Fairview Park	5	20.0%	3080	3876	17.8%	22.4%	4.6%	15
Olmsted Falls	4	25.0%	2035	2429	23.7%	28.2%	4.6%	16
Seven Hills	4	25.0%	2706	3194	23.1%	27.3%	4.2%	17
Brook Park	4	25.0%	4169	4873	22.4%	26.2%	3.8%	18
Highland Heights	4	25.0%	2088	2366	23.9%	27.1%	3.2%	19
Lakewood	4	25.0%	12202	13794	24.0%	27.1%	3.1%	20
Garfield Heights	7	14.3%	3815	4741	12.8%	15.9%	3.1%	21
Parma	4	25.0%	5000	5617	23.9%	26.9%	3.0%	22
Richmond Heights	4	25.0%	2573	2864	23.8%	26.5%	2.7%	23
Cleveland Heights	17	5.9%	18258	27133	4.9%	7.3%	2.4%	24
Solon	7	14.3%	3288	3761	13.6%	15.5%	1.9%	25
Lyndhurst	4	25.0%	3403	3650	24.2%	26.0%	1.8%	26
Maple Heights	7	14.3%	3192	3603	13.5%	15.2%	1.7%	27
Westlake	6	16.7%	5544	6133	16.2%	17.9%	1.7%	28
Euclid	8	12.5%	5902	6663	11.9%	13.4%	1.5%	29
Rocky River	4	25.0%	5313	5606	24.4%	25.8%	1.3%	30
Parma Heights	9	11.1%	8475	9520	10.4%	11.7%	1.3%	31
North Olmsted	4	25.0%	7974	8340	24.6%	25.7%	1.1%	32
Strongsville	4	25.0%	11448	11806	24.6%	25.4%	0.8%	33

U.S. Census Bureau, 2020 Decennial Census
 Cuyahoga County Board of Elections, November 2017
 *North Royalton figures reflect estimated population as of May 2022

Alternatives

The city charter provides several guidelines in determining ward boundaries. Wards shall be:

- **As nearly equal in population** to each of the others as shall be practicable
- **Contiguous**
- **Compact**
- **Bounded by street lines and natural boundaries**

Nearly equal in population is the primary concern. See the earlier section of this report on “Comparison to Other Communities” for guidance on reasonable levels of equality among wards within Cuyahoga County. In addition, a generally acceptable range for population proportion in local districts is 10% (see *Hulme v. Madison County*, US District Court for the Southern District of Illinois).

Contiguous boundaries mean that wards must not be separated into parts that are divided by other wards.

Compact boundaries would ideally be represented as a geometric circle – which is not likely. A compact shape requirement is generally a check against “gerrymandering” (manipulating the boundaries of and electoral constituency to favor one party or class). While the size of wards in North Royalton varies with population density, their current shapes appear to be relatively compact. Proposed alternatives presented here are not substantially different.

Bounded by street lines and natural boundaries is a requirement that puts some of the greatest restriction on developing alternatives. For instance, wards cannot be divided using power lines, rear lot lines or other features.

Perhaps the largest limitation is that there are several large and populous sections of the City that cannot be divided by streets or natural boundaries, including:

- Ward 3: A large census block south of Albion Road, between Abbey and York Roads contains 1,827 people. This section has several “islands” within it, which cannot be separated out.
- Ward 4: A block north of Royalton Road, between York and Ridge Roads contains 1,734 people.
- Ward 5: A block generally bounded by Akins/Edgerton Roads, north of Royalton Road and west of York contains almost 1,097 people.

Some of these large areas, especially those along boundaries with adjoining wards, make simple adjustments difficult. Other adjustments might require splitting along interior neighborhood streets instead of current major arterials.

The following sections of this report provide a series of three alternatives (A, B, and C), each building upon on another to achieve more and more equitable distributions of population among the City’s six wards.

Alternative A

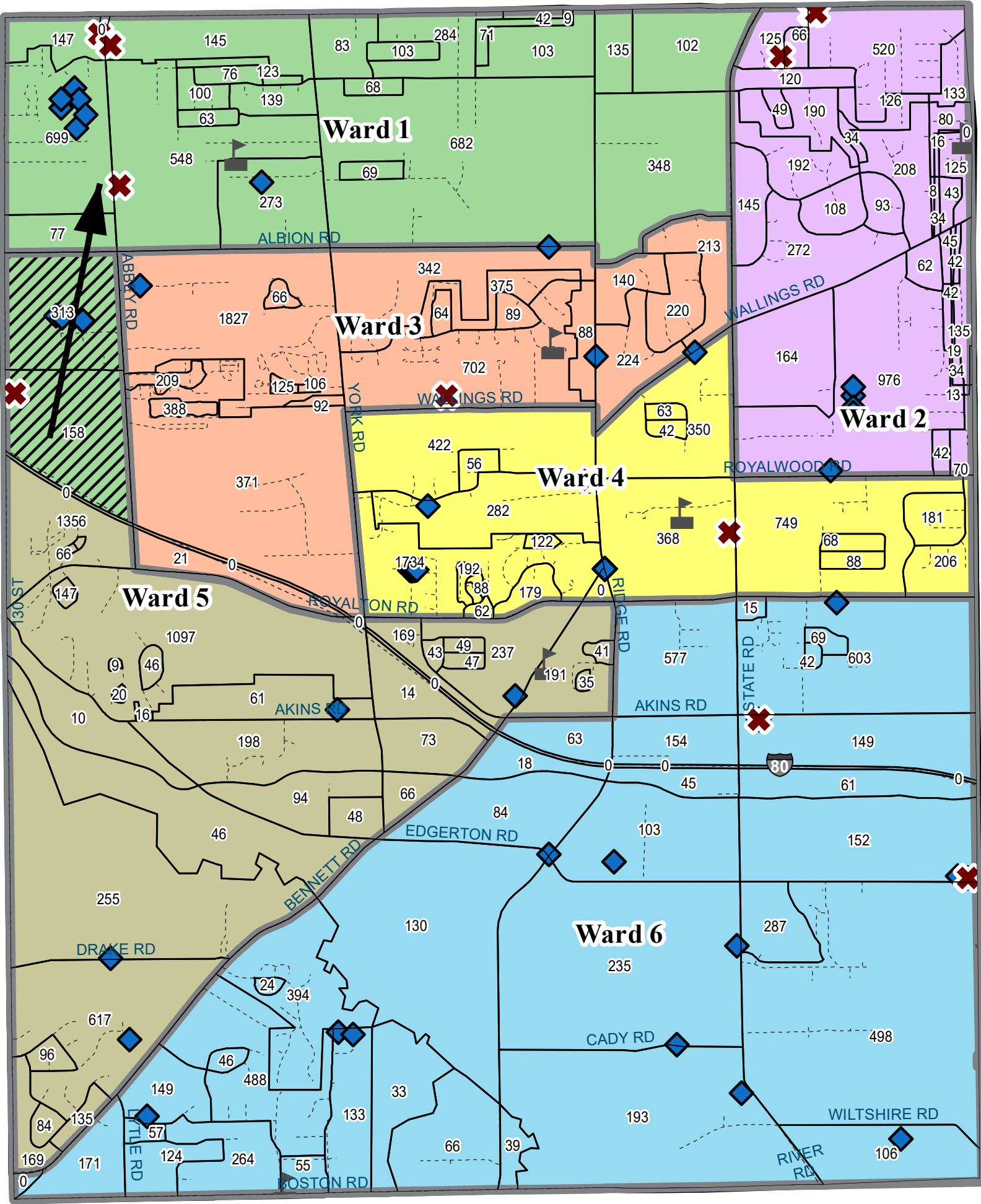
See Figure 2 on the following page

Alternative “A” is the least disruptive and seeks to equalize two adjacent wards with among the lowest and highest proportions of population. Ward 1 (2nd lowest) and Ward 5 (highest) have a common boundary along Albion Road. Transferring two census blocks located between I-80 and Albion Road from Ward 5 to Ward 1 would bring each of those two wards’ population to within about one percentage point of the ideal share of 16.7%. A total of 471 persons would change wards.

By reducing the Ward 5 population share from 19.3% to 17.8%, Alternative “A” results in a range of population from a low of 13.8% (Ward 2) to a high of 17.8% (Ward 5), a range of 4.0%. This compares to an “Existing” range of 5.5%.

A result of this change is that Ward 2 remains the lowest population ward among the six, with 13.8%

FIGURE 2. Alternative "A"



Legend

Wards By Census Blocks

- 1 (Green)
- 2 (Purple)
- 3 (Orange)
- 4 (Yellow)
- 5 (Tan)
- 6 (Light Blue)

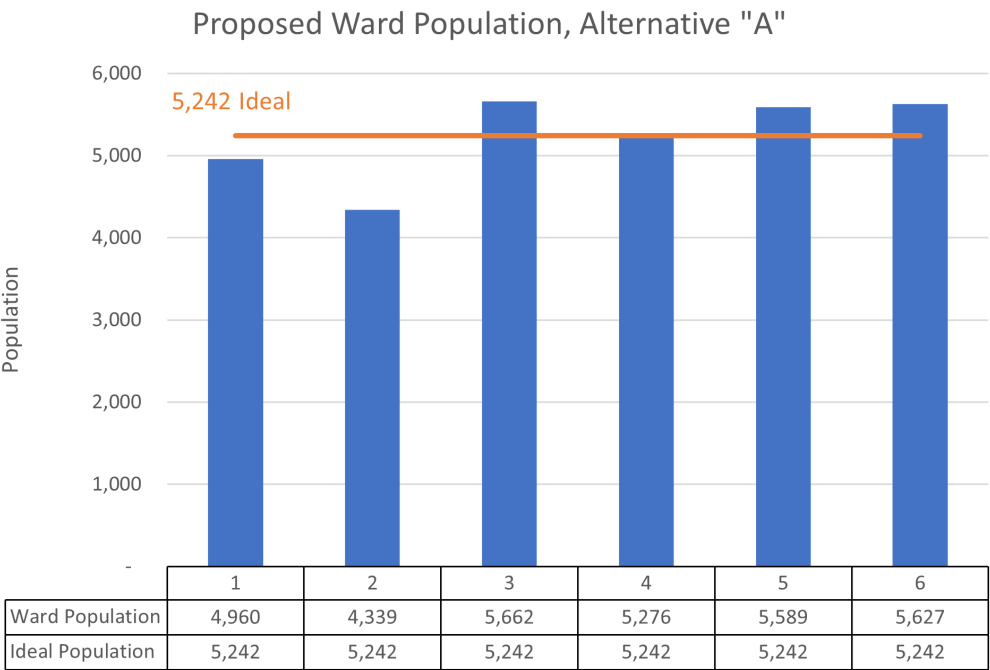
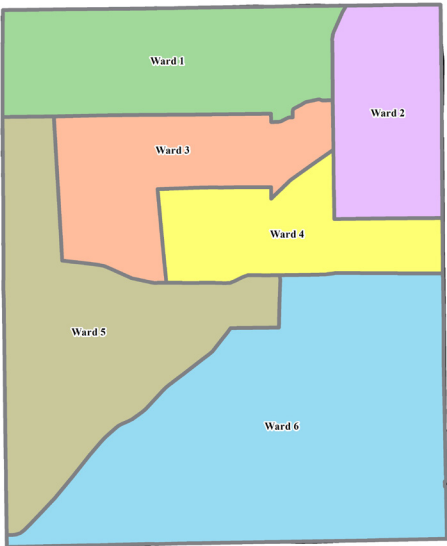
Ward Boundary

Affected Area By Census Block

Council Person

Demolition

Occupancy Permit



Alternative B

See Figure 3 on the Following Page

Alternative “A” changes:

- From Ward 5 to Ward 1: two blocks south of Albion Road and west of Abbey Road (471 persons).

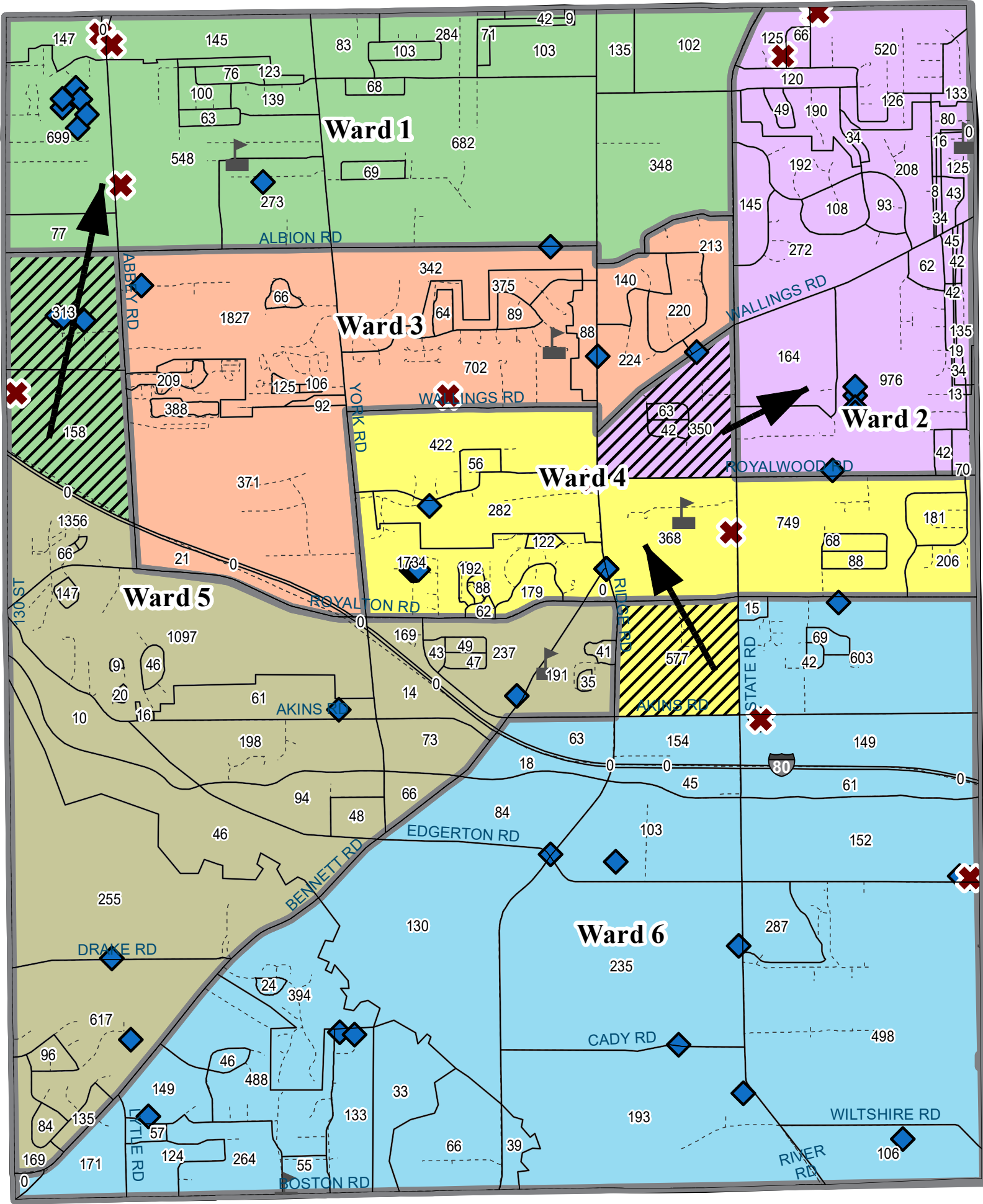
Alternative “A” still leaves Ward 2 with only a 13.8% share of the City total and Ward 6 with an 17.9% share. Since those two wards are not adjacent to each other, a simple transfer of blocks between the two is not possible.

Alternative “B” proposes to add to the change presented in “A” by also transferring:

- From Ward 6 to Ward 4: the large block bounded by Royalton, Akins, Ridge, and State Roads (577 persons), and
- From Ward 4 to Ward 2: three “nested” blocks bounded by Royalwood, Wallings, Ridge, and State Roads (455 persons). The three blocks would have to be moved together since two inner blocks are surrounded by the much larger 3rd block.

Overall, Alternative “B” results in a range of population from a low of 15.2% (Ward 2) to a high of 18.0% (Ward 3), a range of 1.8%, This compares to an “Existing” 2017 range of 5.5%.

FIGURE 3. Alternative "B"



Legend

Wards By Census Blocks

- 1 (Green)
- 2 (Purple)
- 3 (Orange)
- 4 (Yellow)
- 5 (Brown)
- 6 (Blue)

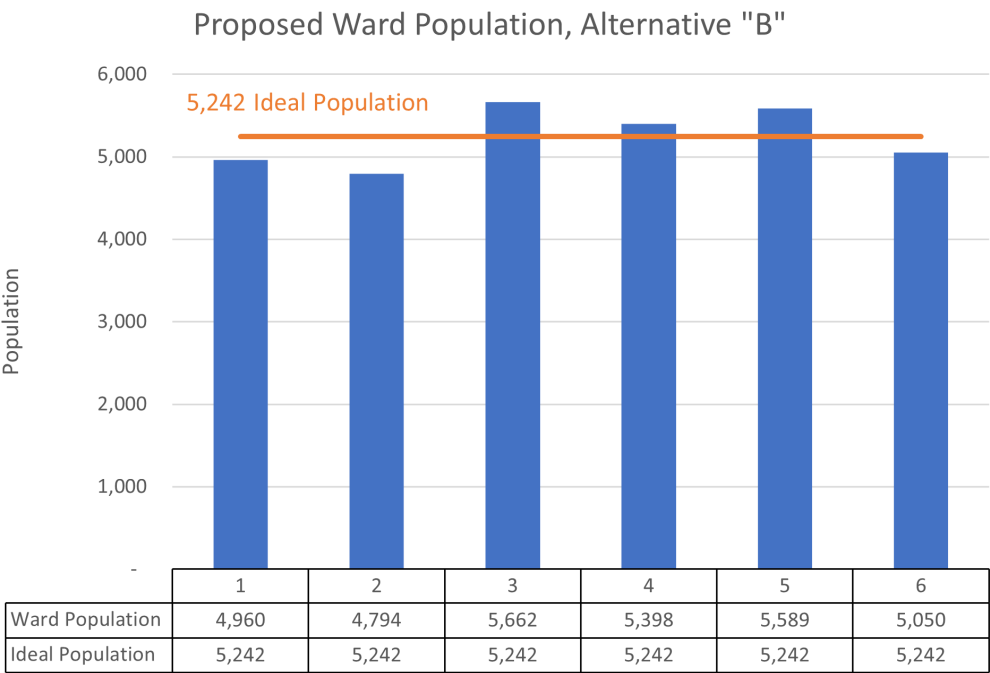
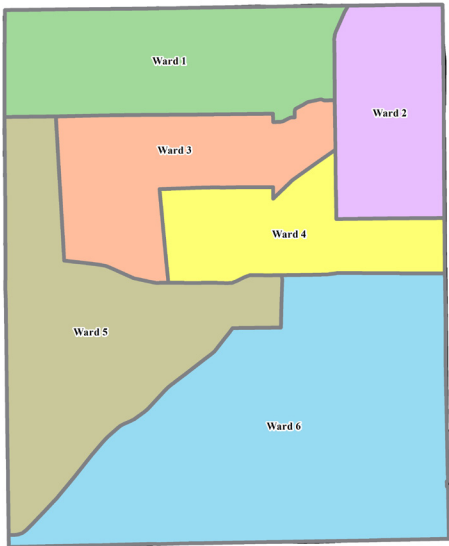
Ward Boundary

Affected Area By Census Block

Council Person

Demolition

Occupancy Permit



Alternative C

See Figure 4 on following page.

Alternative “A” changes:

- From Ward 5 to Ward 1 : two blocks south of Albion Road and west of Abbey Road (471 persons).

Alternative “B” changes:

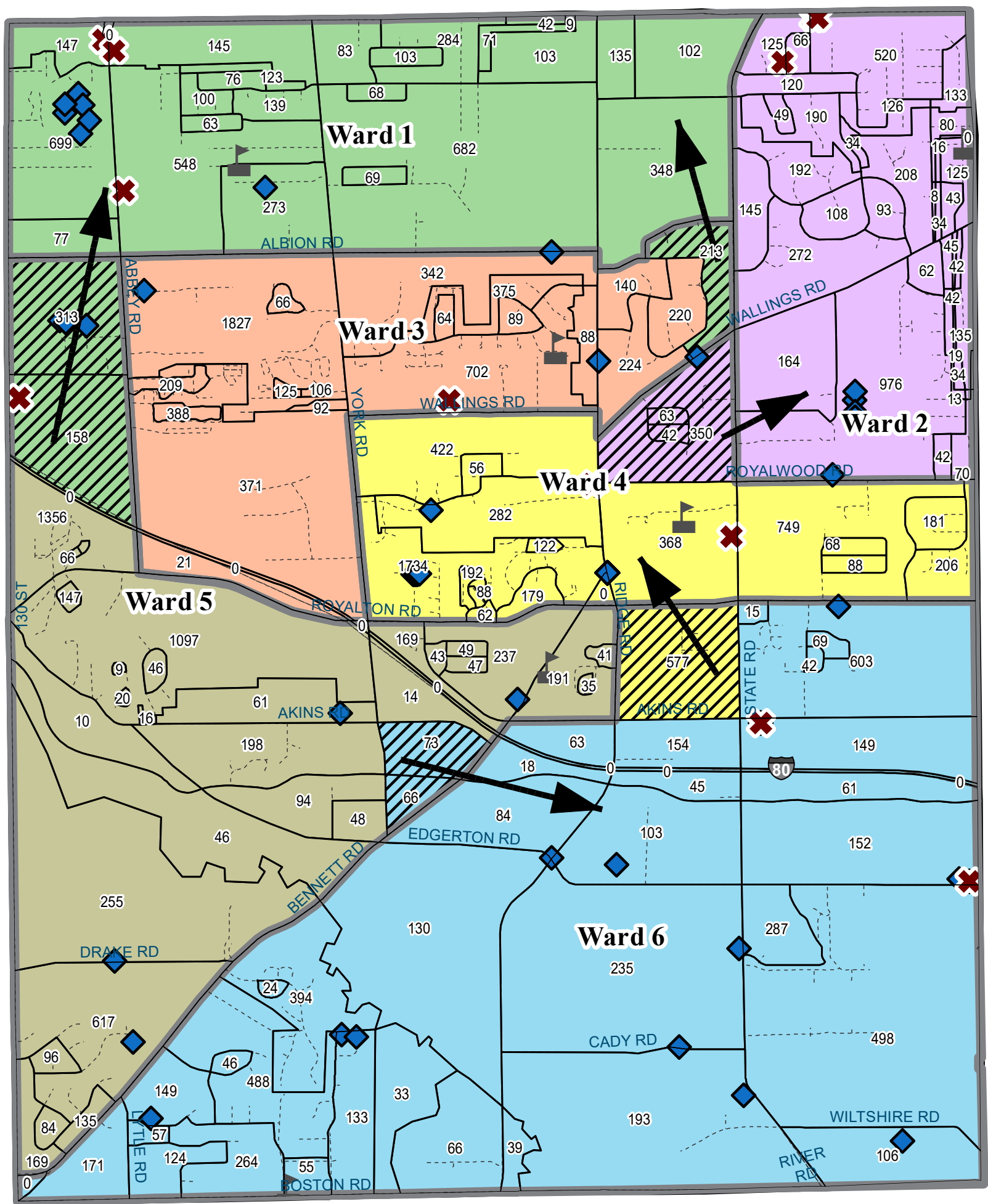
- From Ward 6 to Ward 4: the large block bounded by Royalton, Akins, Ridge, and State Roads (577 persons), and
- From Ward 4 to Ward 2: three “nested” blocks bounded by Royalwood, Wallings, Ridge, and State Roads (455 persons). The three blocks would have to be moved together since two inner blocks are surrounded by the much larger 3rd block.

Alternative “C”, adding to the proposed changes in Alternative “B”, addresses imbalances between adjacent Wards 1 and 3, and between Wards 5 and 6:

- From Ward 3 to Ward 1: The census block at the easternmost end of Ward 3, bounded by Castle Drive, State Road, Wallings Road, Parliament Drive, Devonshire Drive, and Queen’s Way (213 persons), and
- From Ward 5 to Ward 6: Two blocks bounded by Akins, York, and Bennet Roads (139 persons).

Overall, Alternative “C” results in a range of population from a low of 16.4% (Ward 1) to a high of 17.3% (Ward 5), a range of only 0.9%. This compares to an “Existing” 2017 range of 5.5%.

FIGURE 4. Alternative "C"

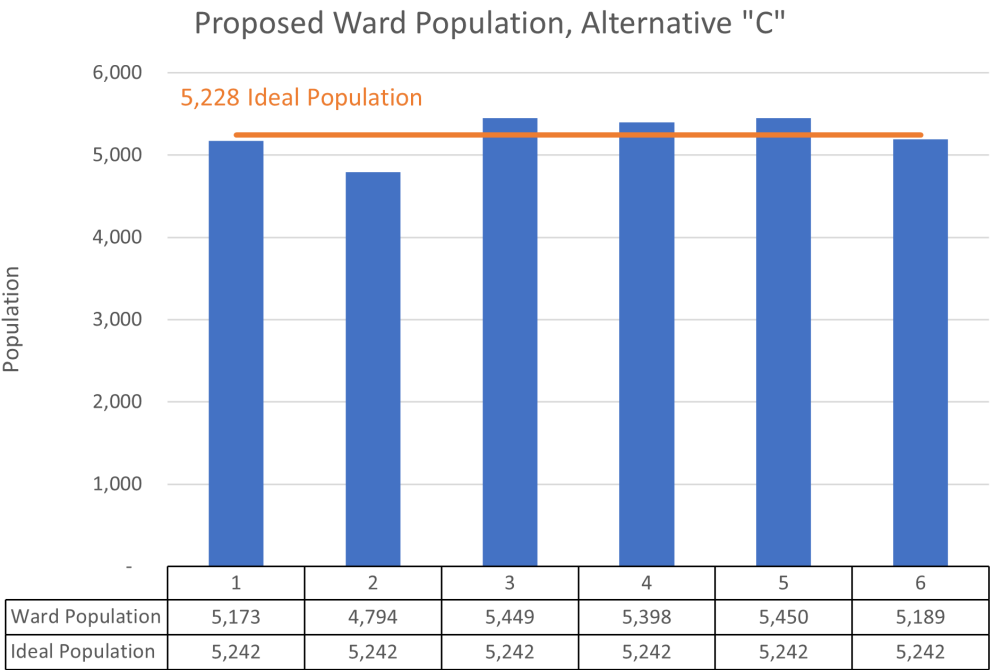
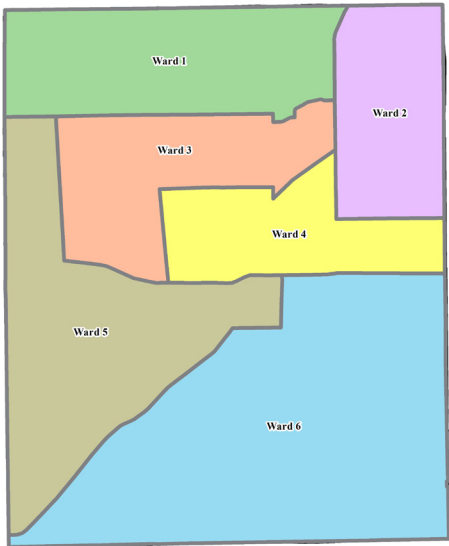


Legend

Wards By Census Blocks

- 1 (Green)
- 2 (Purple)
- 3 (Orange)
- 4 (Yellow)
- 5 (Brown)
- 6 (Blue)

- Ward Boundary
- Affected Area By Census Block
- Council Person
- Demolition
- Occupancy Permit



Conclusion

The City of North Royalton's current ward boundaries provide a reasonable range of estimated population among its six wards. Several data points support this conclusion:

- Per the city charter, there has not been an increase in population in any ward exceeding 15%. The largest increase was 6.30% in Ward 3.
- Ward population proportions ranged from a low 13.8% (Ward 2) to a high of 19.3% (Ward 5), or about 5.5%. This spread is well within a generally acceptable range of 10% for local districts.
- Alternatives A, B, and C provide several scenarios to consider for current or future redistricting efforts, should the City wish to consider them.