Round Rock 2030

DEVELOPING OUR FUTURE

2023 DENSITY STUDY

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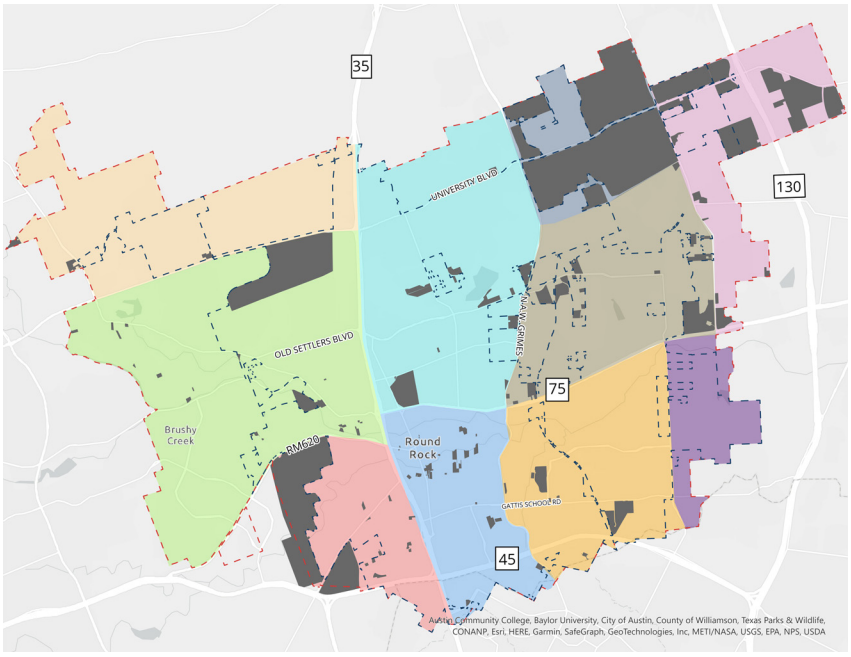
The *2023 Density Study* examines the availability of vacant parcels and how density affects population at the ultimate build out of Greater Round Rock. Greater Round Rock includes land in the city limits and extraterritorial jurisdiction (ETJ). This study considers vacant parcels which are suitable for residential use and, therefore, impact population. These vacant parcels may support residential or mixed use that could have a residential component. This includes a range of development from low-density single-family to high density multifamily development.

This study looks at future growth geographically by identifying vacant parcels and evaluating a minimum and maximum density for each parcel. This study examines the population that available vacant land can support at various densities.

METHODOLOGY

The study includes vacant parcels greater than 0.5 acres designated by the Future Land Use Map (FLUM) as Residential or Mixed Use. Downtown Mixed Use parcels are also included and may be less than 0.5 acres. This study excludes Municipal Utility Districts (MUDs) in Greater Round Rock because development standards and utility jurisdictions vary across MUDs and they have limited vacant land.

Vacant parcels are categorized by lot size and organized into 10 study areas. The lot size categories include parcels equal to or greater than 10 acres, between 5 and 10 acres, and less than 5 acres but greater than 0.5 acres. The vacant parcels and study areas are shown on the map below.



- Vacant Parcels
- Study Area 1 (North of FM 1431, west of I35)
- Study Area 2 (North of 620, west of I 35, south of FM 1431)
- Study Area 3 (North of 45/Bratton Ln, west of I35, south of 620)
- Study Area 4 (North of 79, east of I35, west of N A.W. Grimes Blvd)
- Study Area 5 (North of Avery Nelson Pkwy, east of N A.W. Grimes Blvd, west of CR 110)
- Study Area 6 (North of 79, east of N A.W. Grimes Blvd, west of CR 110, south of Avery Nelson Blvd)
- Study Area 7 (North of 79, east of CR 110, west of CR 100/130)
- Study Area 8 (South of 79, east of I35, west N A.W. Grimes Blvd)
- Study Area 9 (South of 79, east of N A.W. Grimes Blvd, west of Red Bud Lane)
- Study Area 10 (South of 79, east of Red Bud Lane, west of 130)
- City Limits
- ETJ

Density assumptions were derived to test density scenarios on the vacant parcels. These assumptions are based on existing and pending developments in Greater Round Rock that range from low density single family subdivisions to high density multifamily and mixed use developments. The assumptions were derived by dividing the total units per acreage of each site including land dedicated for utilities, transportation, and open space. The calculations were categorized into five density assumptions ranging from 1.5 units per acre to 30 units per acre.

DENSITY ASSUMPTION	UNITS/ACRE
1 (Single Family Large Lot)	1.5
2 (Single Family Standard Lot)	3.5
3 (Missing Middle: High Density Single Family and Low Density Multifamily)	10
4 (Medium Density Multifamily/ Mixed Use)	20
5 (High Density/Urban Multifamily)	30

Round Rock 2030, the city's comprehensive plan, uses location criteria such as lot size, road type, and proximity to other land uses to determine the appropriateness of land uses for particular sites. The vacant parcels were evaluated based on *Round Rock 2030* location criteria to determine an appropriate density assumption for future development. Staff excluded Planned Unit Developments (PUDs) that are already in the development process. For PUDs not yet in development, staff considered the development requirements in the adopting ordinance in addition to *Round Rock 2030* location criteria. Additional considerations were included in the study to account for unique projects which may conflict with existing location criteria but could be accommodated by a PUD. For this study, Medium Density Multifamily/Mixed Use and High Density/Urban Multifamily density assumptions were considered for parcels greater than 30 acres even if the site:

1. Is adjacent to a single family development;
2. Has no primary access to an arterial or collector road way;
3. Is adjacent to another multifamily development.

Once all the vacant parcels were reviewed, a low and a high density assumption was assigned to each parcel. The vacant total acreage was multiplied by the corresponding density assumption to determine how many units could be added to each study area in the low and high density scenario. The results of this exercise are presented on page 4.

DATA

The table below shows total acres, total vacant acres, the number of vacant parcels, and how many units could be added to each study area in the low and high density scenario.

STUDY AREA	TOTAL ACRES	VACANT ACRES*	VACANT PARCELS*	UNITS ADDED- LOW DENSITY SCENARIO	UNITS ADDED- HIGH DENSITY SCENARIO
1	4,713.36	31.76	4	48	735
2	8797.89	662.20	23	5,983	18,191
3	2959.29	911.01	18	9,043	27,154
4	6,486.75	240.17	13	945	6,498
5	2,900.44	1852.68	16	3,944	55,581
6	4,671.56	223.05	23	982	5,760
7	3,432.25	861.44	24	3,415	23,883
8	3,057.32	73.73	51	332	1,258
9	4,357.32	122.32	32	822	2,635
10	1,525.50	79.04	6	119	1,419
TOTAL	**42,901.68**	**5057.40**	**210**	**25,633**	**143,114**

***excludes parcels less than 0.5 acres.**

LIMITATIONS OF DATA

When considering the results of this study, it is important to recognize the scope of the analysis and the limitations of the project data. The analysis only considers vacant sites designated for residential and mixed use and the population the site may produce based on its density. It does not consider projects currently in development or sites that may redevelop in the future. Regarding population growth, the study does not consider intentions of current property owners regarding the future use of their land or additional services, amenities, infrastructure improvements, and other factors necessary to support growth.

An average of 2.61 people per household was used to project population. This assumption is based on the mixture of housing types in Greater Round Rock as of 2020. As Greater Round Rock continues to develop, the mixture of housing types may vary. Likewise, the composition of households may also change. Higher density developments typically have fewer people per household than a subdivision of single-family detached homes. Should the number of higher density developments increase, the average people per household may decrease.

CONCLUSION

This study marks the first time Planning and Development Services (PDS) has examined projected growth by specific study area rather than city wide or project-based. Data from this analysis can be adjusted to evaluate proposed changes in density by study area. The purpose of this baseline study is to analyze the availability of vacant land and how various density scenarios may affect population in Greater Round Rock. By considering the lowest possible density scenario and the highest possible density scenario, the study yields a deeper understanding of how individual parcels affect population trends across the city. This analysis confirms that there is land available for substantial population growth in Greater Round Rock and to support current population projections and build out projections the city has produced in various studies.

The results of this study present two extreme scenarios of Greater Round Rock density. The low density scenario assumes that every vacant parcel, greater than 0.5 acres, develops between 1.5 and 10 units per acre. In this scenario, an additional 25,633 units could be added to Greater Round Rock. Assuming an average 2.61 people per household, these units could increase the Greater Round Rock population by nearly 67,000 to approximately 257,000 from the 2023 estimated population of 189,951. Note that this does not include population added through pending projects or future redevelopment.

Alternatively, the high density scenario assumes that every parcel develops at the highest density, ranging up to 30 units per acre where the site permits. In this scenario, an additional 143,114 units could be added to Greater Round Rock, over five times the amount of units added in the low density scenario. Although the average people per household may decrease with a larger amount of high density developments, the high density scenario could expand population well beyond what the city currently projects.

Vacant land will likely develop with a range of uses and densities, not only at its lowest or highest potential. However, even the low density scenario results in substantial growth. As Greater Round Rock continues to grow, it is important to be mindful of how new development fits into the larger plan for build out. The city should consider how the density of individual projects affect the broader distribution of population across the city. This report may be a reference when evaluating new proposals and may provide a more comprehensive understanding of how individual developments impact Greater Round Rock.

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