



City of Pflugerville

Market Analysis Report

Prepared for

Ms. Amy Madison, CEcD, EDFP

Executive Director

Pflugerville Community Development Corporation

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Pflugerville, TX 78660

By

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On

May 23, 2018



CAPITOL MARKET RESEARCH

Real Estate Research, Land Development Economics & Market Analysis

May 23, 2018

Ms. Amy Madison, CEcD, EDFP
Executive Director
Pflugerville Community Development Corporation
3801 Helios Way, Suite 130
Pflugerville, TX 78660

Re: Market Analysis for the Pflugerville Market Area to include current and future market demand for multi-family and condominium housing, office, retail, and industrial development.

Dear Ms. Madison:

As requested, we have prepared a market analysis for the PCDC and the City of Pflugerville, which will be used to determine the future market demand for both commercial and residential uses in the Pflugerville market area.

The results of our analysis are provided in the report that follows. The report was prepared in its entirety by Capitol Market Research and relies on data collected in the field, from comparable and competitive commercial developments in Travis County and from secondary data sources such as the City of Pflugerville, the U.S. Bureau of Census and the Austin Board of Realtors. We appreciate the opportunity to provide you with this analysis and welcome any questions or comments that you may have.

Respectfully submitted,

CAPITOL MARKET RESEARCH, INC.

Charles H. Heimsath
President

CHH/ebr

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Preface

Date Of Study

The effective date of this study is May 23, 2018.

Purpose Of Study

The purpose of this report is to prepare a market analysis for the City of Pflugerville, which will evaluate its position with respect to current and anticipated market trends, and conclude with determination of future demand.

Function Of The Report

This report is to be utilized by Pflugerville Community Development Corporation (PCDC) , the City of Pflugerville and other interested parties to assist in determining the absorption potential of various land uses and a corresponding estimate of value increase and potential tax revenue.

Property Identification

The subject is the City of Pflugerville and the defined Pflugerville Market Area.

Assumptions

1. The consultant assumes that all information and data provided by the City of Pflugerville and Travis County are correct with respect to the availability of utilities, zoning and conformance with city building codes.
2. All statements of fact in the report, which are used as the basis of consultant's analyses, opinions and conclusions are true and correct to the best of consultant's knowledge and belief. Consultant shall not have responsibility for legal matters, questions of survey, opinion of title, soil or subsoil conditions, engineering or other technical matters. Any sketches prepared by the consultant and contained in the report will be included solely to aid the user of the report in visualizing the property and its location.
3. Each finding, projection, assumption or conclusion contained in the market study will be the consultant's personal opinion and will not be an assurance that such an event will or will not occur. Consultant may assume that there are no "hidden" conditions relating to the real estate that would affect consultant's analyses, opinions or conclusions.
4. The data gathered in the market study and value estimates provided in the analysis do not constitute an appraisal as defined by the Appraisal Institute. With respect to the data provided by client, consultant shall not violate the confidential information furnished to consultant.

Methodology

A feasibility study is a general term, implying analysis aimed at discovering whether or not a specific project can be carried out successfully, with success usually indicating a sufficient return on capital required to attract investors to carry out the development. This requires two basic and interdependent analyses: a market study to determine supply, demand and potential absorption rates, and a financial analysis to determine whether or not the proposed project can be economically justified over a given period of time. This market study primarily addresses the market

demand, sales prices and absorption issues and will be used in combination with more detailed financial feasibility studies conducted by the client to determine overall project feasibility.

**REGIONAL ECONOMIC AND DEMOGRAPHIC
TRENDS & FORECASTS**

Economic Context

Overview

The subject, the City of Pflugerville, is a rapidly growing suburban community in the Austin MSA, located between the City of Austin to the south and the City of Round Rock to the north. While Pflugerville has a growing employment base, it is also affected by and connected with the economic base of the entire Austin-Round Rock MSA. The Austin MSA is comprised of Bastrop, Caldwell, Hays, Travis and Williamson counties. According to the U.S. Census Bureau, the Austin-Round Rock MSA grew by 23.3% in from 2010 through 2016 (U.S. Census estimates, July 1), and now has a population that exceeds 2.1 million people. According to the US Census Bureau's 2017 population estimates, the City of Pflugerville grew from a population of 46,936 in 2010 to 63,659 in 2017, an increase of 35.6%. Pflugerville is now (2017 U.S. Census Estimates) the third fastest growing city in the nation among cities with at least 50,000 residents.

The Austin-Round Rock MSA is anchored by employment in state and local government and higher education, including the University of Texas, St. Edward's University, Texas State University, and Southwestern University. Research and development and healthcare are also important economic influences, while high-tech and internet-based companies have become an integral part of the economy.

Employment Growth

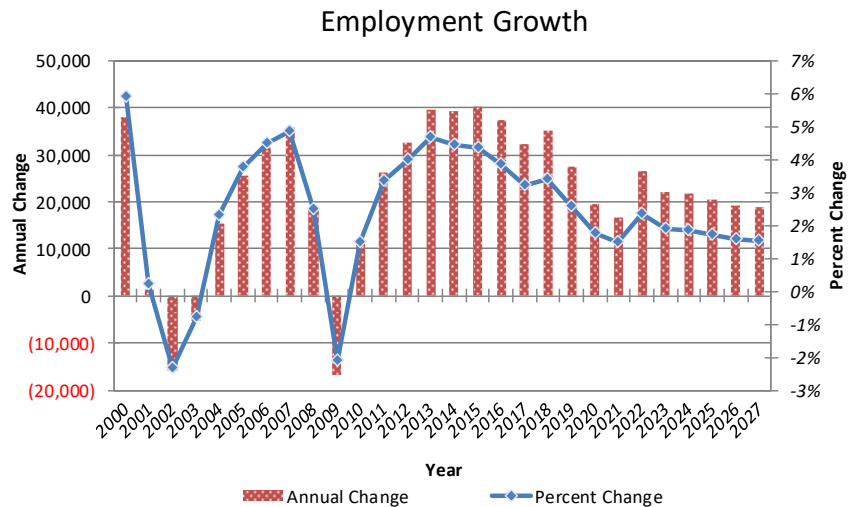
Employment grew rapidly in Austin in the late 1990s with annual increases ranging from 25,100 in 1996 to 38,000 in 2000. However, in 2002 the Austin area lost more than 16,000 in 2003, and 5,400 in 2004, due to the regional impact of the dot com bubble. In a remarkable recovery, growth resumed in 2004, and the Texas Workforce Commission reported a net increase of 108,100 jobs in from January 2004 through December 2007. For a period of time in late 2007 and early 2008 it appeared that Austin might not be affected by the national housing crisis, but eventually the lack of credit for new lot construction, retail store expansions and business inventory additions resulted in a decrease in new job creation in the local economy, which was diminished by -16,800 in 2009. However, the economy began a modest recovery in 2010 with 11,400 jobs added and gained more momentum in 2011 with 26,300 jobs added. The recovery then accelerated, adding approximately 39,000 jobs in 2013 and again in 2014. Employment growth continued its positive trajectory through 2015 and 2017, with an average increase of 36,500 jobs a year. The most recent forecast (April 2018) shows a slower, but still positive job growth trend. Table (1) on the following page provides recent employment statistics and projections for the Austin-Round Rock MSA. Forecasted annual increases in the Austin-Round Rock MSA employment for 2018 through 2027 are expected to average 2.01%. The forecast shown is from Moody's, Economy.com, Austin-Round Rock MSA Employment Forecast, April 8, 2018. It should be noted that CMR has extended the forecast through 2028, applying a 1.53% change from 2027 to 2028, in order to obtain a complete 10-year forecast.

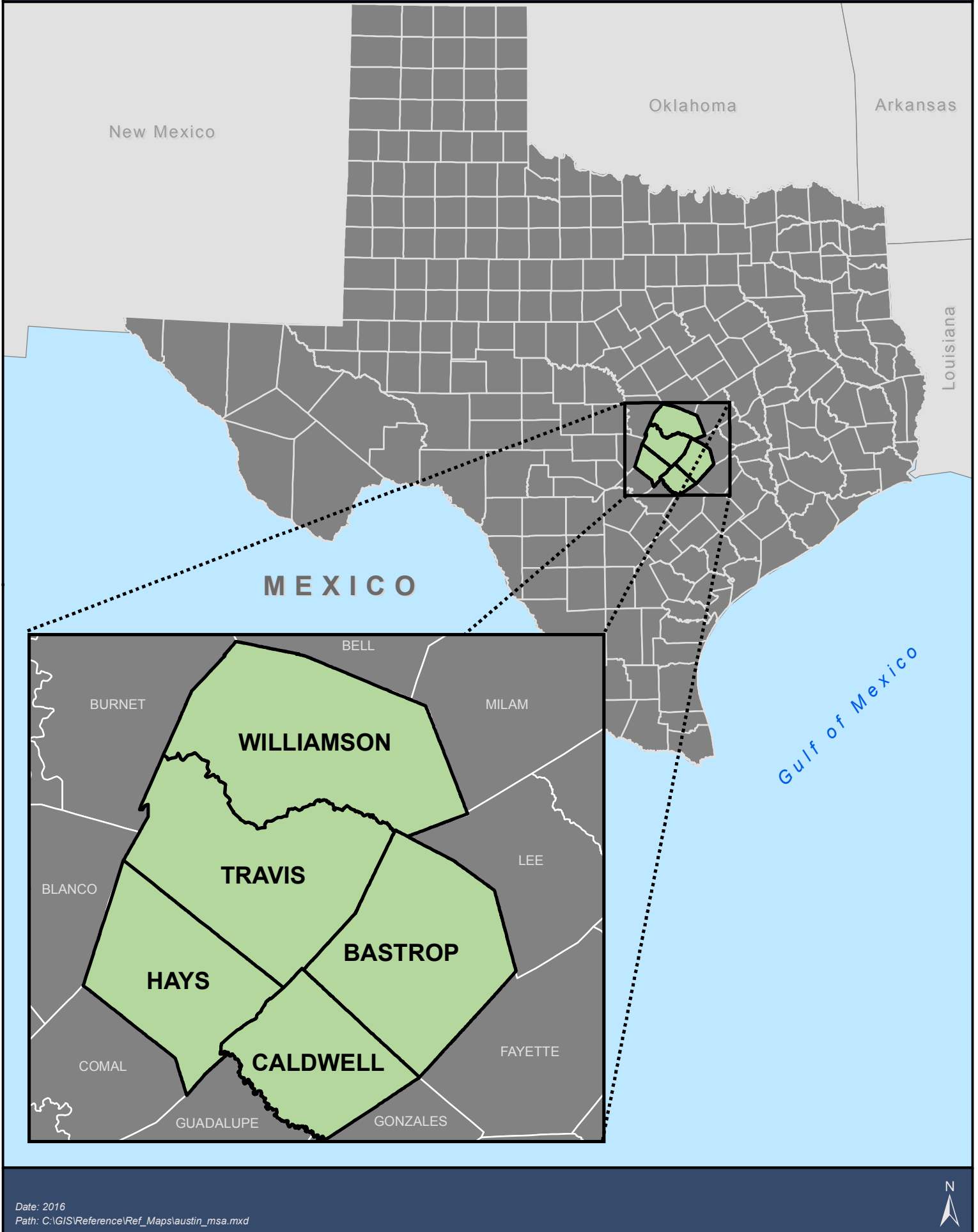
Table (1)
Historical & Projected Employment Growth
Austin-Round Rock MSA

	Year	Total Wage & Salary Emp.	Annual Change	Percent Change
Historical	2000	683,900	38,000	5.88%
	2001	685,300	1,400	0.20%
	2002	669,300	(16,000)	-2.33%
	2003	663,900	(5,400)	-0.81%
	2004	679,100	15,200	2.29%
	2005	704,600	25,500	3.75%
	2006	736,300	31,700	4.50%
	2007	772,000	35,700	4.85%
	2008	791,000	19,000	2.46%
	2009	774,200	(16,800)	-2.12%
	2010	785,600	11,400	1.47%
	2011	811,900	26,300	3.35%
	2012	844,400	32,500	4.00%
	2013	884,000	39,600	4.69%
	2014	923,100	39,100	4.42%
	2015	963,300	40,200	4.35%
	2016	1,000,500	37,200	3.86%
Projected	2017	1,032,600	32,100	3.21%
	2018	1,067,600	35,000	3.39%
	2019	1,095,000	27,400	2.57%
	2020	1,114,400	19,400	1.77%
	2021	1,131,000	16,600	1.49%
	2022	1,157,600	26,600	2.35%
	2023	1,179,500	21,900	1.89%
	2024	1,201,100	21,600	1.83%
	2025	1,221,700	20,600	1.72%
	2026	1,240,800	19,100	1.56%
	2027	1,259,800	19,000	1.53%
	2028	1,279,100	19,300	1.53%

Source: Texas Workforce Commission, Annual Average Wage &
Non-Farm Salary Employment (1990-2017)
Forecasted employment increase obtained from Moody's
Economy.com April 9, 2018

datasets_empgro_austin_2018.xls





Population & Household Trends

The Austin MSA has seen a 3.20% average annual increase in population from 2000 to 2014, while the total number of households increased by an average of 2.92% annually. Travis County saw slightly lower percentage average annual increases in population (2.50%) and households (2.25%) during the same time period, as the growth rate in surrounding MSA counties surpassed that of Travis county. The City of Pflugerville grew by an average of 9.16% annually in population, and an even more rapid 9.84% in households during that same period. Household size in both the MSA and County decreased or stayed relatively flat from 2000 and 2010 but have since increased in both areas. The City of Pflugerville has a larger house size than the MSA and Travis County even after decreasing slightly since 2010.

Table (2)
Population and Household Growth
MSA, County, and City (2000 to 2014)

Area	Population			Annual Change (2000 - 2014)
	2000	2010	2014	
Austin-Round Rock MSA	1,249,763	1,716,289	1,942,615	3.20%
Travis County	812,280	1,024,266	1,148,176	2.50%
City of Pflugerville	16,335	46,936	55,712	9.16%

Area	Total Households			Annual Change (2000 - 2014)
	2000	2010	2014	
Austin-Round Rock MSA	471,855	650,459	706,066	2.92%
Travis County	320,766	404,467	437,831	2.25%
City of Pflugerville	5,146	15,789	19,146	9.84%

Area	Population in Households			Annual Change (2000 - 2014)
	2000	2010	2014	
Austin-Round Rock MSA	1,212,806	1,675,416	1,901,359	3.26%
Travis County	791,574	1,001,220	1,124,596	2.54%
City of Pflugerville	16,217	46,753	55,497	9.19%

Area	Average HH Size			Annual Change (2000 - 2014)
	2000	2010	2014	
Austin-Round Rock MSA	2.57	2.58	2.69	0.33%
Travis County	2.47	2.48	2.57	0.29%
City of Pflugerville	3.15	2.96	2.90	-0.60%

Source: US Bureau of the Census, 2000 & 2010, ACS 5-Year Survey 2012-2016

Note: The ACS 2012-2016 is a rolling 5-year survey, meant to represent the median year of 2014.

Prepared by Capitol Market Research, April 2018

demographics.xls

Household Tenure Trends

Table (3) below shows trends in household tenure for the Austin MSA and Travis County. Between 2000 and 2010, the percent of renter households in the Austin MSA dropped slightly, as many suburban areas saw a boom in single family housing construction. However, from 2010 to 2014, renter households have increased in the MSA as “infill” development has increased in and around the central core, and as many suburban areas have also experienced apartment development and job growth. This increase in apartment development is demonstrated by the 5.53% average annual increase in the percentage of renter households in the City of Pflugerville from 2000 to 2010, as renter households grew from just 10.44% of the total to 22.60%. In most areas, the combination of smaller unit sizes and lower incomes leads to smaller average household size among those that rent. However, owner households (77.82%) still make up the majority of households in the City of Pflugerville, and the 2014 ACS saw a very minimal change in tenure.

Table (3)
Households by Tenure
MSA, County, and City (2000 to 2014)

Area	Total Households			Annual Change (2000 - 2014)
	2000	2010	2014	
Austin-Round Rock MSA	471,855	650,459	706,066	2.92%
Travis County	320,766	404,467	437,831	2.25%
City of Pflugerville	5,146	15,789	19,146	9.84%

Area	Percent Owner			Annual Change (2000 - 2014)
	2000	2010	2014	
Austin-Round Rock MSA	58.22%	58.49%	58.08%	-0.02%
Travis County	51.43%	51.92%	51.98%	0.08%
City of Pflugerville	89.56%	77.40%	77.82%	-1.00%

Area	Percent Renter			Annual Change (2000 - 2014)
	2000	2010	2014	
Austin-Round Rock MSA	41.78%	41.51%	41.92%	0.02%
Travis County	48.57%	48.08%	48.02%	-0.08%
City of Pflugerville	10.44%	22.60%	22.18%	5.53%

Source: US Bureau of the Census, 2000 & 2010, ACS 5-Year Survey 2012-2016

demographics.xls

Note: The ACS 2012-2016 is a rolling 5-year survey, meant to represent the median year of 2014.

Prepared by Capitol Market Research, April 2018

Austin MSA Population and Household Forecast

As demonstrated in the previous section, population growth in Austin and other rapidly growing U.S. cities is almost always attributable to the immigration of people from other areas, often because of job opportunities. The demonstrable growth in employment and an unemployment rate of 3.0% for the Austin-Round Rock MSA (BLS, February 2018) means that as new jobs are created, people will move into the region to take those jobs. Most recently, over 67% of the population growth in the MSA was attributable to in-migration.

Although CMR has utilized job growth (Shown previously in Table (1)) to forecast short-term population growth, the City of Austin Demographer recommends using Texas State Data Center (TSDC) population data for longer term forecasts. For this 10-year forecast, CMR has chosen to use population estimates which are based on the most recently completed forecast available from the Texas State Data Center at Texas A&M University, (Scenario 1.0 and Scenario 0.5 blended), which is based on the US Census. Combining population growth with average household size (US Census 2010), CMR has estimated that the Austin-Round Rock MSA will grow by an annual average of 20,409 households per year from 2018 through 2027.

Table (4)
Households Forecast
Austin-Round Rock MSA

Year	MSA Population	Population Increase	Household Size	New Households
2018	2,090,000	50,341	2.58	19,512
2019	2,140,845	50,845	2.58	19,707
2020	2,192,419	51,575	2.58	19,990
2021	2,243,968	51,549	2.58	19,980
2022	2,296,107	52,139	2.58	20,209
2023	2,348,701	52,595	2.58	20,385
2024	2,402,027	53,326	2.58	20,669
2025	2,456,146	54,119	2.58	20,976
2026	2,510,764	54,618	2.58	21,170
2027	2,566,221	55,457	2.58	21,495

Source: Population increase based on TSDC MSA Forecast *empgro_2018.xls*
(Scenario 0.5 and 1.0 blend), Household size based on 2010 Census

REGIONAL REAL ESTATE
MARKET TRENDS & FORECASTS

Apartment Market Trends in the Austin MSA

Historical Trends

Traditionally, apartment projects in Austin have been clustered near activity centers, major employers and the university areas. Examples of this phenomenon include the cluster of apartments near IBM, Dell, Abbott Labs and Seton Hospital as well as the apartments surrounding the University of Texas, St. Edwards University, and the various Austin Community College campus locations. In the recent past, the Central Business District had relatively few residential rental units in inventory. However, since 2009 and 2010, several new communities were developed within the area, with construction continuing into 2016.

Market conditions in the Austin area multi-family market were volatile in the eighties, when Federal Tax Policy caused dramatic overbuilding of the apartment market in 1985 and 1986, followed by several years of inactivity. After dropping to 80% occupancy in the mid-eighties, occupancy rates steadily increased, and by 1990, rapid rent escalation was underway. However, it was not until 1993 that overall market rental rates were high enough to support widespread construction activity.

As Austin's economy experienced robust growth in the early nineties, the resurgence of multi-family construction began in 1991 when 148 units were constructed and 220 units were absorbed. At that time citywide occupancy was at 93.7% and apartments leased for an average \$0.57 per square foot. From that period through mid-1996, average rent per square foot and absorption accelerated dramatically. Occupancy first peaked in December 1994 at 97.4%, and then again in June 2000 (at 98.2%), while new unit completions peaked in 1996 at 6,405 units and then again at 8,472 in 2001. Since 1996, the pace of new construction fluctuated from year to year but both occupancy and average rental rates increased steadily through the end of 2000.

In 2001, for the first time in many years, new unit completions dramatically exceeded absorption and the market plunged from 97.6% in January to 90.0% by the end of the year. Rents dropped precipitously, but the building continued into 2002, in spite of the softness in the market. Beginning in late 2003, new construction activity began to diminish and regional apartment demand regained strength which resulted in the positive absorption trend through 2004, 2005, 2006 and 2007. However, in 2008 the market occupancy rate decreased 5.2 percentage points from 2007, with additional drops in 2009 occupancy (90.4%) and rental rates (\$0.93). December 2010 and 2011 saw a rapid recovery, and by 2012¹, rental rates had increased again to \$1.12, a \$0.07 increase since December 2011, and occupancy also increased to reach an astonishing 97.4%. In December 2014, rental rates climbed to \$1.26, and occupancy has dropped slightly to 94.0%, before reaching \$1.35 at 94.5% in December 2015.

Current Market Conditions

There were 43,611 net units added between 2010 and 2016, including new units, renovations added back into inventory, and those units removed from inventory due to either a condo conversion or demolition, including the highest number of units added in one year since the late 1980s (10,371 units in

¹ The December 2012 multi-family survey was the first year that incorporated San Marcos and Georgetown.

2014). From 2010 through 2013, absorption was very strong as net units added were consistently less than unit demand. The December 2014 Capitol Market Research (CMR) Survey showed 10,371 net units added in 2014, the most net units added in the area in a calendar year for over 20 years. This increased rate of construction, cumulating with the opening multiple new projects at the end of the year, resulted in a lower than expected net absorption rate and a decline in occupancy. However, the December 2015 survey showed a return to strong annual absorption, with 9,347 units absorbed, the highest rate of absorption ever recorded, and the occupancy rate rose to 94.5%. December 2016 saw a net addition of 10,780 units, topping the previous record set in 2014. Although absorption remained strong in 2016, the occupancy rate dipped to 93.8%, and rental rates increased slightly since the end of 2015 to \$1.39 per square foot.

The most recent survey data, completed by CMR in December 2017, shows a net addition of 10,727 units, just slightly less than the record achieved the previous year. Absorption was 5,891 units, dropping the occupancy rate to 92.2%, as 52 projects continue their lease-up. Rental rates have fallen slightly since the \$1.41 seen in June 2017, back to \$1.39 per square foot. Table (5), on the following page, provides apartment market conditions from December 1991 through December 2017. Historical data on occupancy, average rent, unit completions and absorption for 1991 through 2017 is taken from CMR's Austin Apartment Survey, a semi-annual survey of all projects with more than 50 units in the Austin area.

Table (1)
Austin MSA Apartment Summary
December 1991 - December 2017

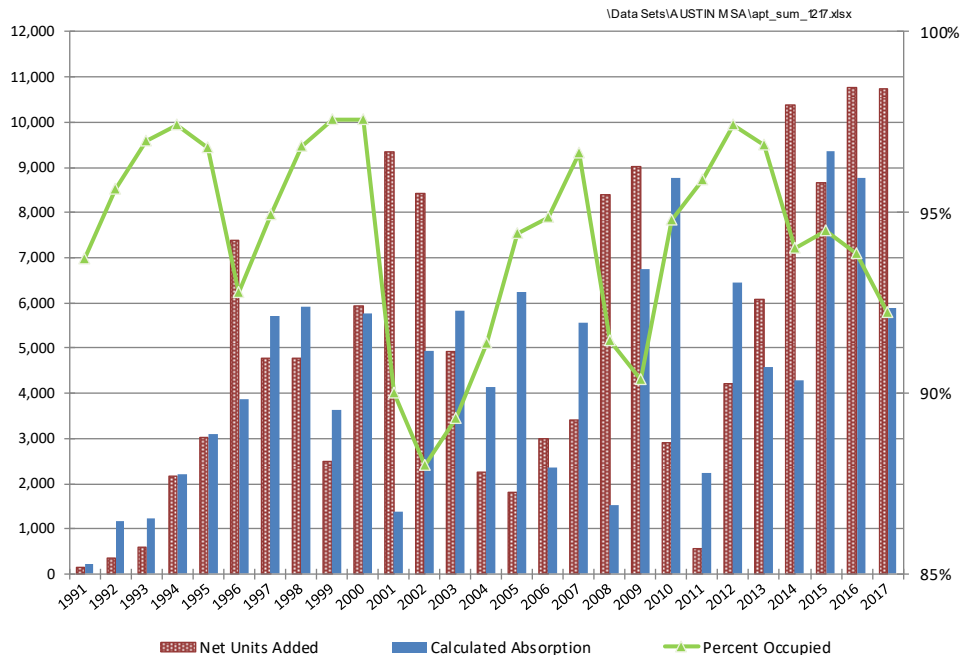
Year	Total Units	Occupied Units	Percent Occupied	Net Units Added	Calculated Absorption	Rent per Sq.Ft.
1991	61,113	57,266	93.7%	148	220	\$0.57
1992	61,118	58,448	95.6%	348	1,160	\$0.64
1993	63,074	61,174	97.0%	594	1,229	\$0.71
1994	66,379	64,662	97.4%	2,178	2,212	\$0.75
1995	69,324	67,101	96.8%	3,010	3,098	\$0.79
1996	77,019	71,452	92.8%	7,384	3,882	\$0.81
1997	81,382	77,270	94.9%	4,770	5,697	\$0.82
1998	86,428	83,683	96.8%	4,778	5,929	\$0.86
1999	89,699	87,531	97.6%	2,499	3,643	\$0.91
2000	96,114	93,786	97.6%	5,923	5,773	\$0.98
2001	105,162	94,651	90.0%	9,351	1,368	\$0.94
2002	113,380	99,794	88.0%	8,432	4,925	\$0.86
2003	120,169	107,290	89.3%	4,912	5,828	\$0.81
2004	122,323	111,786	91.4%	2,262	4,133	\$0.81
2005	124,325	117,389	94.4%	1,819	6,243	\$0.85
2006	126,842	120,304	94.8%	2,993	2,356	\$0.91
2007	128,900	124,558	96.6%	3,416	5,562	\$0.96
2008	137,005	125,284	91.4%	8,404	1,526	\$0.97
2009	145,734	131,686	90.4%	9,025	6,750	\$0.93
2010	147,045	139,361	94.8%	2,906	8,773	\$0.98
2011	147,648	141,614	95.9%	576	2,245	\$1.05
2012	164,143	159,918	97.4%	4,222	6,441	\$1.12
2013	170,234	164,917	96.9%	6,087	4,589	\$1.21
2014	180,519	169,732	94.0%	10,371	4,279	\$1.26
2015	189,320	178,901	94.5%	8,669	9,347	\$1.35
2016	200,028	187,718	93.8%	10,780	8,770	\$1.39
2017	210,655	194,253	92.2%	10,727	5,891	\$1.39

Source: Capital Market Research, December 1991 - 2017 Apartment Market Survey

CMR estimates of new completions based on surveys of property managers and owners

Net Units added and Absorption are calculated numbers, and will take into account new units, added older inventory, "retired" inventory, and remodeled units.

Georgetown and San Marcos included in totals starting in 2012



Attached Housing Market Trends in the Austin MSA

Historically, attached housing² projects in the Austin MSA have been clustered in the central city, mostly in neighborhoods close to downtown, the Arboretum area and the University of Texas. Over the last decade, that area has expanded to include more neighborhoods such as Tarrytown, Bouldin Creek, Travis Heights, Barton Creek, Lakeway, East Austin and the Central Business District (CBD). The combination of strong consumer demand for housing and the rapid escalation of land prices in desirable neighborhoods has provided opportunities for new, higher density housing options. The most viable, and perhaps most successful, emerging market is the CBD. Since 2000, over 2,200 new condominiums units have been completed and absorbed, and many units have sold for prices that exceed \$600 per square foot.

The current market trend has a solid footing in basic land economic fundamentals, unlike the condominium construction boom in the mid-eighties, which was fueled by favorable income tax treatment of “passive” real estate investments. In addition to rising single-family home prices, the demand for higher density housing has a strong demographic basis in aging baby-boomer households and busy young professionals.

In the late nineties there were almost no attached housing projects for sale in Austin. Then in 2000, suburban construction began with the Courtyard Homes at Cobblestone (59 units) and Bouldin Creek Condominiums (33 units). Both projects were enthusiastically received by the young professional homebuyer and sold out quickly. Liberty Hill was also built in 2000, and sold rapidly to both young professionals and the empty nesters that live in the Westlake area. The success of these three projects enticed other developers to explore the market, and most of the new suburban product developed since then has been well received. In roughly the same time period, the downtown condominium market emerged, expanding from two small “adaptive reuse” projects on East Fifth St., to several new condominium towers.

Current Market Conditions

As discussed above, the attached housing market in the Austin area is rapidly gaining strength and is emerging as an important segment of the new home market. Attached housing sales, as a percentage of total MLS home sales, have fluctuated over the past ten years (2007-2016) within a narrow range between 9% and 11%, with an average of 10.19%. Recently, in 2017, attached housing sales have increased to 11.61% of all housing sales in the Austin MSA. This percentage is likely to increase over the next few years as more product is brought to the market.

Historically, as demand increased and new, more expensive units were introduced to the market, the average unit sales price of existing units also increased from \$148,936 in 2003 to \$210,602 in 2007. In 2009, the average price dropped to \$176,026 but it has continued to rise since then, reaching \$296,822 at the end of 2016. The most recent sales year, 2017, saw the average sale price of existing attached housing in the Austin MSA rise to \$322,278, or \$239 per square foot.

² Capitol Market Research defines “Attached Housing” as duplex, triplex, fourplex, townhome or condominium units.

One of the most interesting aspects of this higher density market is the degree to which urban homebuyers are accepting new innovative product, whether it is stark urban lofts in East Austin (The Pedernales), or elegant stone townhomes (Kinney Muse) and combined condo/townhome projects (Denizen) in South Austin, or expensive high-rise condominiums in downtown (The Austonian and the Residences at the Four Seasons). In suburban locations, the product of choice appears to be the small single family home built on a “pad site” in a condominium subdivision.

There are currently several new projects under construction or in the initial preconstruction sales period. Most of these projects are located in central city neighborhoods on major arterials in or close to downtown, but there are also a number of new projects in surrounding suburban communities, which include Cedar Park, Georgetown, Pflugerville, Lakeway and Round Rock.

Table (6)
Austin MSA Attached Housing Sales
 December 2003 - December 2017

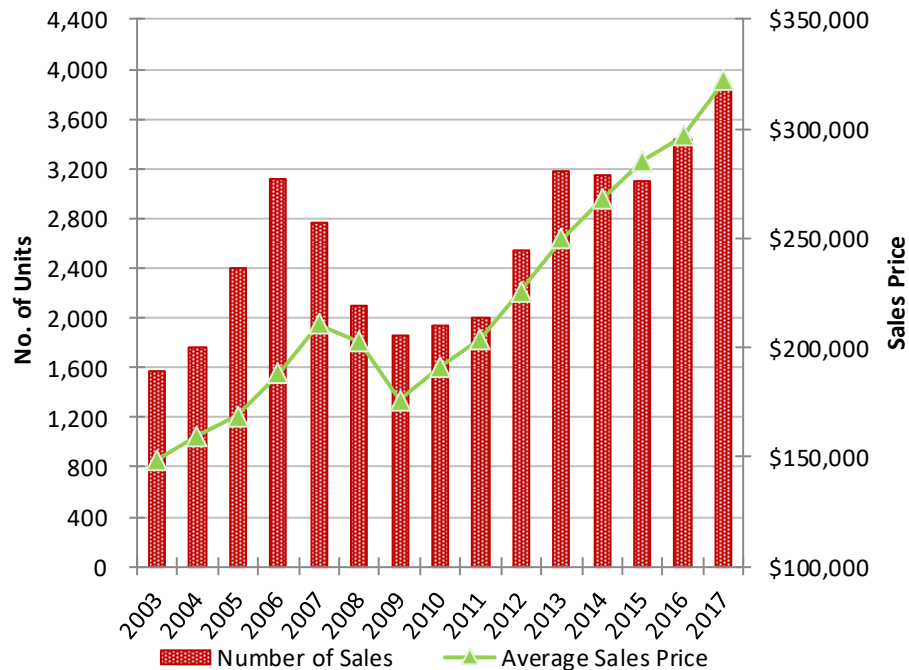
Year	Number of Sales	Average Sales Price	Average Sq.Ft.	Average \$/SF	Average DOM
2003	1,568	\$148,936	1,242	\$120	64
2004	1,763	\$159,662	1,275	\$125	81
2005	2,399	\$168,652	1,254	\$134	74
2006	3,123	\$188,212	1,227	\$153	58
2007	2,767	\$210,602	1,268	\$166	53
2008	2,103	\$202,649	1,215	\$167	72
2009	1,860	\$176,026	1,166	\$151	82
2010	1,945	\$191,274	1,241	\$154	80
2011	1,997	\$204,103	1,264	\$161	89
2012	2,550	\$225,877	1,311	\$172	70
2013	3,177	\$249,849	1,277	\$196	47
2014	3,144	\$267,939	1,293	\$207	38
2015	3,099	\$285,482	1,296	\$220	39
2016	3,432	\$296,822	1,312	\$226	53
2017	3,830	\$322,278	1,347	\$239	51

Source: Austin Board of Realtors, MLS Database

condo_sum.xls

Prepared by Capitol Market Research, February 2018

MLS Search Conditions: Condo, Duplex, Townhome in five county metro area



Austin Office Market Overview

The office market in Austin has, over the last 26 years, evolved from a relatively small government-oriented market to a much larger and more diverse multi-tenant market. In 1980 the multi-tenant office market in Austin contained approximately 5.4 million square feet of space in 77 buildings. By 1987, the market had expanded fourfold to include more than 22 million square feet in 251 buildings and it now contains 46.6 million sq. ft. in 653 buildings.

Reflecting the historical focus on State government and the location of the Capitol Building, for most of the 20th century a majority of office space was concentrated in Downtown Austin. In recent years, however, suburban office development has dominated the market, since almost 100% of the space built during the nineties was constructed in the suburban market. From 1993 to 1999, a majority of leasing activity also took place in the suburbs, and until the first quarter of 2001, the suburban markets displayed remarkable strength, with almost every new building fully leased when it received a certificate of occupancy. Now, as a result of another boom in suburban office construction in 2007 and 2008 the suburban market occupancy rates have dropped dramatically and the market has become much more competitive.

Historical Market Trends

Austin, like many other cities in Texas, experienced an unprecedented boom in office space construction and absorption in the mid-eighties. Driven by a rapidly expanding economy and media attention associated with the formation of MCC (Microelectronics & Computer Technology Corporation, a consortium of high tech businesses, working together to create innovative technology), office absorption in 1984 surged to 2.56 million square feet. From 1983 to 1987 the inventory of general-purpose office space increased by 128%, a dramatic expansion caused by a massive construction boom. Unfortunately, the downturn in the Texas economy coupled with slow growth in the computer industry caused declines in office employment and absorption of the new space. In 1987, Austin had one of the lowest occupancy rates in the country at 62.6%.

With increasing occupancy and improving rental rates, 1990 was the turnaround year for the Austin office market. Government agencies led the market recovery as entities like the Austin Independent School District, Austin Community College and the State of Texas purchased vacant multi-tenant office buildings, removing them from the available inventory. This trend continued through 1991 and 1992, and in 1993 and 1994 private companies initiated a similar trend as they bought and occupied suburban office buildings. From 1995 through the end of 2000, the market expansion gained strength as rental rates increased and new buildings were completed and fully leased at completion. Between January 2000 and December 2002, the Austin office market deteriorated rapidly as many pre-profit dot.com companies went out of business and gave up their lease space. Over the same three-year period over 6.0 million square feet were completed in 77 new buildings. In 2003 only one building was completed with 83,843 sq. ft. Four buildings were completed in 2004 with a total of 605,686 sq. ft. and in 2005 and 2006 there were no (0) new buildings added to the inventory. The December 2006 office report showed a dramatic increase in occupancy to 87.8% (including sublease space) and 88.9% occupancy of owner-offered (direct) space. But in December 2007 the occupancy rate dropped to 85.2% due to the lack of

leasing activity combined with the completion of 1,398,077 sq. ft. of new office space in 2007. Absorption for the year was an anemic 145,122 sq. ft., which was a dramatic slowdown from the positive trend of the prior three years. In December 2008 the office market conditions continue to decline as 2,373,710 square feet were added to the market and only 484,876 square feet were absorbed. Then, in 2009, the market experienced negative absorption of almost one million sq. ft. while 976,999 sq. ft. were added during the year. December 2010 occupancy, including sublease space, increased to 80.3% but the quoted rental rates dropped by \$1.63 to \$24.68. Throughout 2011, average rates continued their decline, but occupancy rates increased and in some areas, like the CBD and Southwest Austin, finding large blocks of contiguous space was increasingly difficult. At the end of 2011, average rates were down slightly from 2010 to \$24.19, but occupancy including sublease space increased to 83.7%.

Recent Market Conditions

Throughout 2012 and 2013, the market steadily improved with strong leasing activity in the CBD, and the suburban Northwest and Southwest market areas. At the end of 2015, the citywide occupancy rate surpassed 90.0% for the first time since 2000. The market has continued to gain strength through 2016, ending the year 91.6% occupancy and average rents reaching \$34.05 (gross rates). In the first half of 2017, strong demand supported an increase in the average to \$34.91 (gross) per square foot. The occupancy rate in June 2017 leveled off at 91.6%.

A December 2017 report by Cushman and Wakefield showed the Austin office market at 89.6% occupied, with an absorption rate of 627,153 square feet. Average rents, according to Cushman and Wakefield, have continued to climb, reaching \$36.13 (gross) per square foot. Capitol Market Research documented over 1.6 million square feet of office space delivered in 2017, including three buildings with multi-tenant space that were delivered in the CBD (500 W. 2nd, Shoal Creek Walk, and the UT Systems Building), Domain 8 (292,000 sq.ft.) in North Central Austin that was 100% preleased upon completion, and over 410,000 square feet in the suburban market area of Southwest Austin, including two buildings (175,000 sq.ft.) that were preleased to YETI.

Table (7)
Austin MSA Office Market Summary
(December 1991 - December 2017)

Year	Net Rentable Area	Total Leased	Percent Occupied	Additions (Sq.Ft.)	Absorption (Net Sq.Ft.)	Average Rent per Sq. Ft.
1991	21,010,788	16,592,251	79.0%	120,000	674,374	\$12.12
1992	20,783,333	17,312,282	83.3%	0	917,967	\$12.37
1993	20,979,552	18,174,152	86.6%	195,454	798,889	\$12.84
1994	21,237,702	18,742,752	88.3%	0	695,813	\$13.54
1995	21,343,917	19,230,407	90.1%	33,000	352,263	\$14.85
1996	22,351,191	20,461,948	91.5%	448,875	588,677	\$16.25
1997	23,564,021	21,952,889	93.2%	701,342	957,623	\$17.89
1998	24,659,563	23,206,121	94.1%	1,077,000	1,190,829	\$19.88
1999	26,841,892	25,161,595	93.7%	2,239,516	1,997,260	\$21.11
2000	28,524,537	27,213,822	95.4%	1,764,244	1,867,353	\$26.70
2001	31,162,686	25,531,590	81.9%	2,520,265	(1,680,818)	\$26.05
2002	33,198,203	24,256,957	73.1%	1,617,984	(1,274,633)	\$20.71
2003	33,125,064	24,840,794	75.0%	83,843	583,837	\$18.35
2004	34,529,701	27,960,818	81.0%	605,686	1,572,164	\$18.88
2005	34,607,839	29,402,802	85.0%	0	912,552	\$20.08
2006	34,513,174	30,288,445	87.8%	0	965,954	\$21.96
2007	35,630,721	30,365,399	85.2%	1,398,077	145,122	\$25.47
2008	38,445,479	31,313,962	81.5%	2,373,710	484,876	\$27.41
2009	39,677,836	30,584,102	77.1%	976,999	(971,414)	\$26.31
2010	39,274,313	31,548,225	80.3%	88,694	964,123	\$24.68
2011	39,358,387	32,959,646	83.7%	0	1,361,946	\$24.19
2012	39,555,890	34,070,832	86.1%	62,192	1,072,575	\$25.41
2013	39,156,400	34,195,776	87.3%	101,444	485,059	\$27.74
2014	42,222,619	37,626,733	89.1%	1,274,569	1,851,291	\$29.78
2015	44,004,567	40,013,489	90.9%	1,768,664	2,365,751	\$31.18
2016	45,977,582	42,135,826	91.6%	1,632,342	1,833,694	\$34.05
2017	50,068,367	44,850,415	89.6%	1,684,323	627,153	\$36.13

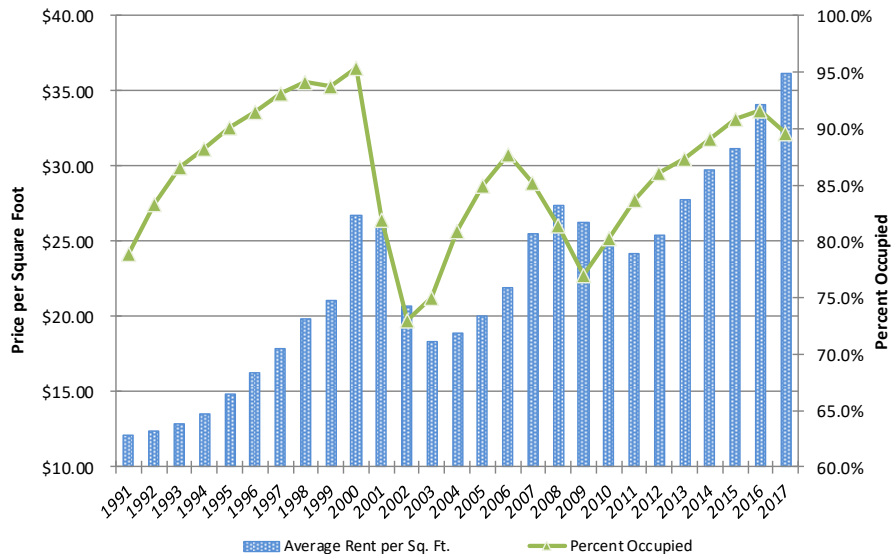
Source: Capitol Market Research, Austin Area Office Survey, December 1991 - December 2016

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Average quoted rent for all available space on a "Gross" Lease basis

Includes sublease space starting in 2001

Note: December 2017 summary from Cushman and Wakefield Marketbeat Q4 2017 Report



Austin Industrial Market Overview

The industrial market in the Austin region grew by more than 176% between 1991 and October 2017, adding over 25.4 million square feet. In 1991, the industrial market in Austin contained approximately 14.4 million square feet of space. By the end of 2001, the market had expanded to include more than 31.1 million square feet of multi-tenant lease space and now (3rd quarter 2017) contains 39.9 million square feet of multi-tenant space. Of the existing space, 66.7% is classified as office/warehouse space and 33.3% is classified as flex/R & D space.

Historically, the largest share of industrial space in the Austin region has been located in the North market area, which currently contains 38.4% of all industrial space in the Austin region, down from 45% in 2000. The Southeast market area contains the second largest share (26.4%), up from 21% in 2000, while the Northeast market area currently contains the third largest share (18.4%). The Round Rock market share of industrial space increased from 7% of the total industrial space in 2000 to 8.5% of the total space in October 2017. Between 2000 and October 2017, 39.9% of the new space built was constructed in the Southeast market area, 26.7% was constructed in the Northeast market area and 22.6% was constructed in the North market area.

Historical Market Trends

Between 1991 and 2000, the occupancy rate for the Austin area averaged 92.9% and the region absorbed a total of 12.8 million square feet. In 2000, absorption in the Austin area reached a record high of 2,486,932 square feet and the market reported an occupancy rate of 94.4%. However, the collapse of the dot.com industry in Austin and throughout the nation resulted in a sharp downturn in occupancy and absorption in the industrial market beginning in 2001. Twelve months after achieving a record high, absorption had dropped to (-361,172) square feet and occupancy had decreased to 85%. At that point, the development community responded to the decrease in demand by putting “on hold” new projects and the developers focused only on finishing projects that were nearing completion. In addition, there was an additional 1,489,076 square feet of sublease space available in the Austin area, which, combined with the direct space, dropped the occupancy rate further to 80%. By the end of 2002, absorption had dropped again to a record low of minus (-1,230,950) square feet and occupancy was recorded at 79.4%.

Signs of recovery began to emerge by the end of 2003. With only 6,920 square feet of inventory added to the Austin market area in 2003, the occupancy rate held steady at 80% and a small positive absorption of 85,483 square feet was reported. Construction continued to be slow and occupancy held steady at 80% through 2004, before increasing slightly (to 82%) in 2005, jumping to 88.1% in 2006 and increasing again slightly to 88.5% in 2007. By the end of 2008, occupancy dropped back to 82.3% with the addition of 2,416,641 sq. ft. in 2008. The decline continued in 2009, with a negative absorption of (-597,206) square feet, coinciding with the national recession. Since that time the market has recovered with positive absorption every year. The high point was in 2012, when 2,050,382 square feet was absorbed, followed by another 1,458,958 square feet in 2015.

Current Market Conditions

According to NAI Commercial Real Estate Services third quarter (October) 2017 Industrial Report, the Austin MSA contains approximately 39,862,834 square feet of industrial space. The Austin Industrial market has continued to show strength, even though more than 1.1 million square feet of space was delivered in the first three quarters of 2017. Absorption remains positive, achieving 444,181 square feet, and occupancy is currently 92.7%.

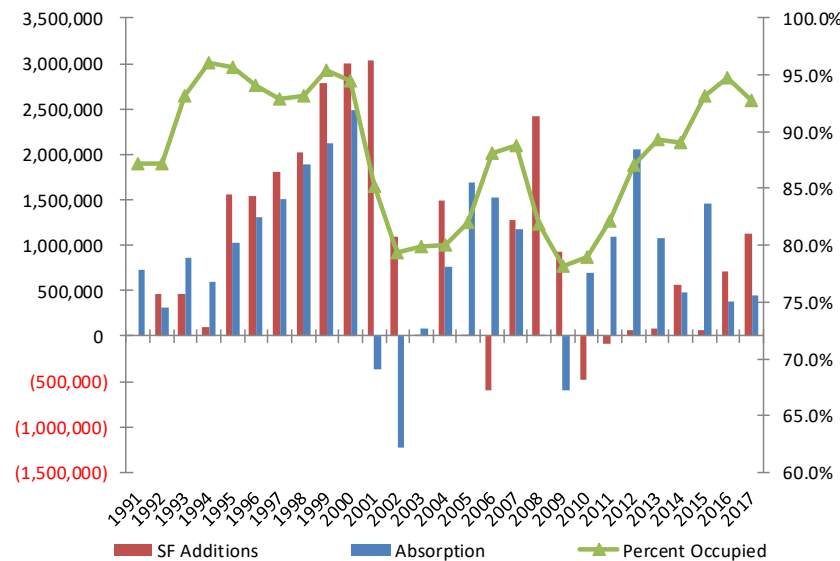
Table (8)
Austin MSA Industrial Market Summary
December 1991 - October 2017

Year	Net Rentable Area	Leased	Percent Occupied	SF Additions	Absorption in Net Sq.Ft.
1991	14,416,825	12,571,257	87.2%	...	727,801
1992	14,873,526	12,958,886	87.1%	456,701	320,480
1993	15,344,847	14,303,064	93.2%	471,321	869,396
1994	15,451,573	14,846,031	96.1%	106,726	591,338
1995	17,010,499	16,280,634	95.7%	1,558,926	1,022,287
1996	18,546,335	17,446,757	94.1%	1,535,836	1,307,281
1997	20,352,172	18,906,796	92.9%	1,805,837	1,515,942
1998	22,375,824	20,834,148	93.1%	2,023,652	1,895,561
1999	25,156,510	24,001,958	95.4%	2,780,686	2,116,030
2000	28,154,302	26,582,507	94.4%	2,997,792	2,486,932
2001	31,196,339	26,562,926	85.1%	3,042,037	(361,172)
2002	32,287,969	25,627,429	79.4%	1,091,630	(1,230,950)
2003	32,294,889	25,821,358	80.0%	6,920	85,483
2004	33,789,695	27,047,957	80.0%	1,494,806	769,020
2005	33,796,412	27,698,796	82.0%	6,717	1,683,751
2006	33,195,873	29,233,123	88.1%	(600,539)	1,529,116
2007	34,477,566	30,590,066	88.7%	1,281,693	1,170,134
2008	36,894,207	30,221,429	81.9%	2,416,641	8,671
2009	37,824,305	29,580,345	78.2%	930,098	(597,206)
2010	37,336,523	29,460,009	78.9%	(487,782)	693,354
2011	37,252,898	30,605,772	82.2%	(83,625)	1,100,158
2012	37,321,832	32,513,065	87.1%	68,934	2,050,382
2013	37,408,302	33,432,879	89.4%	86,470	1,069,148
2014	37,967,373	33,831,439	89.1%	559,071	476,811
2015	38,027,991	35,408,924	93.1%	60,618	1,458,958
2016	38,734,643	36,723,183	94.8%	706,652	385,666
2017	39,862,834	36,568,034	92.7%	1,128,191	444,181

Source: NAI Commercial Industrial Properties December 1991 - October 2017

Compiled by Capitol Market Research, April 2018

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Retail Market Trends in the Austin MSA

Following national trends, the Austin multi-tenant retail market has evolved from a concentration of retail space in neighborhood shopping centers and large regional malls, to a more diverse base that includes “power centers,” “lifestyle centers,” and off-price shopping. Approximately 17.9 million square feet of multi-tenant space have been added to the citywide inventory since 2000, an increase of 70.2%, and much of that space has been located along the Highway 183 corridor in Cedar Park, the MoPac corridor near the Arboretum, at La Frontera in Round Rock, and in Sunset Valley and South Park Meadows. Newer corridors, such as State Highway 130 Toll and State Highway 45 are beginning to see development, as demonstrated by the Stone Hill Town Center in Pflugerville.

It is typical for gross retail sales to increase dramatically during periods of rapid regional growth. Driven by strong growth in population and new household formation, it is not unusual for growth to exceed 10% on an annual basis. While aggregate sales growth is an important metric, the strength of the market is more accurately reflected by gross sales per capita. This data shows an average annual increase of 10.1% from 2004 through 2008, but a decline of -11.0% during the recent recession in 2009. However, since 2010 gross retail sales have continually increased at an average annual rate of 7.9%. The highest rate of change came recently, between 2015 and 2016, when gross retail sales rose by 16.5%.

Historical Market Trends

The combination of rapid population growth and increases in disposable income has created a healthy demand for retail space in the Austin area. In addition, the national trend toward replacement of neighborhood retail stores and malls with “big box” outlet stores and “lifestyle centers” generated a demand for new construction, even in 2001 and 2002, when the Austin economy was stagnant and there was little population growth.

Among commercial property types, the relationship between new construction and absorption is most closely correlated in the retail property group. Most retail center construction is financed with a 70% prelease commitment, which means that when centers are completed, they deliver occupied space to the market, thus maintaining an annual balance between space completed and absorption. The disparities in 2008 and 2009 are due to tenant bankruptcy and downsizing, which created a higher than average vacancy rate in the market.

Recent Market Conditions

Occupancy rates in multi-tenant shopping centers have consistently remained in the 90% to 94% range, even in periods of slow growth. During the national recession between 2008 and 2011, store closures caused by declining activity in the global marketplace resulted in very low absorption and a decrease in occupancy rates and average rents in Austin.

Since December 2010, the Austin retail market has mostly recovered from the national recession. Average rents for the Austin MSA increased between 2010 and December 2013, before declining slightly during 2014 to \$19.85, and increasing to \$21.01 in June 2015, which is the highest average rental rate achieved since 2008. The overall occupancy percentage has increased from 89.4% in December 2009 to

95.0% in December 2015, and to 95.4% in 2016. Currently (December 2017), multi-tenant occupancy has remained high, at 95.8%. There has been 4.8 million square feet of absorption between December 2012 and December 2016, and 809,046 square feet of absorption in 2017, showing the continuing strength of the Austin retail market.

During 2015, 214,229 sq. ft. of new shop space was added to the citywide inventory, and much of that space was located in mixed-use developments, including Seaholm, Corazon, and Lamar Union, and in neighborhood centers such as The Oaks at Lakeway. One notable loss was the closing of Highland Mall (440,000 sq. ft.), which resulted in “net additions” of (-17,444), even though the Austin area added over 380,000 sq. ft. of new space. In 2016, two additions to The Domain, Rock Rose and Domain Northside, opened 625,000 sq. ft., while several mixed-use developments with first floor retail (Burnet Marketplace, Northshore, Lamar Central) were completed. In addition, two neighborhood centers, The Oaks at Lakeway (195,680 sq.ft.) in Lakeway, and Crysall Falls Town Center (93,000 sq.ft.) in Leander were added to the market. In all, there was 1.27 million square feet of new space added in 2016, resulting in 811,108 “net” square feet added (due to buildings taken out of inventory and square foot adjustments). In 2017, over 1.6 million square feet of new multi-tenant retail space was completed, including The Parke, a 400,000 square foot community center in Cedar Park and Mueller Aldrich Street (70,601 sq. ft.), the “Town Center” portion of the Mueller master-planned community. In addition, over 135,000 of space in new strip centers was added to the retail inventory.

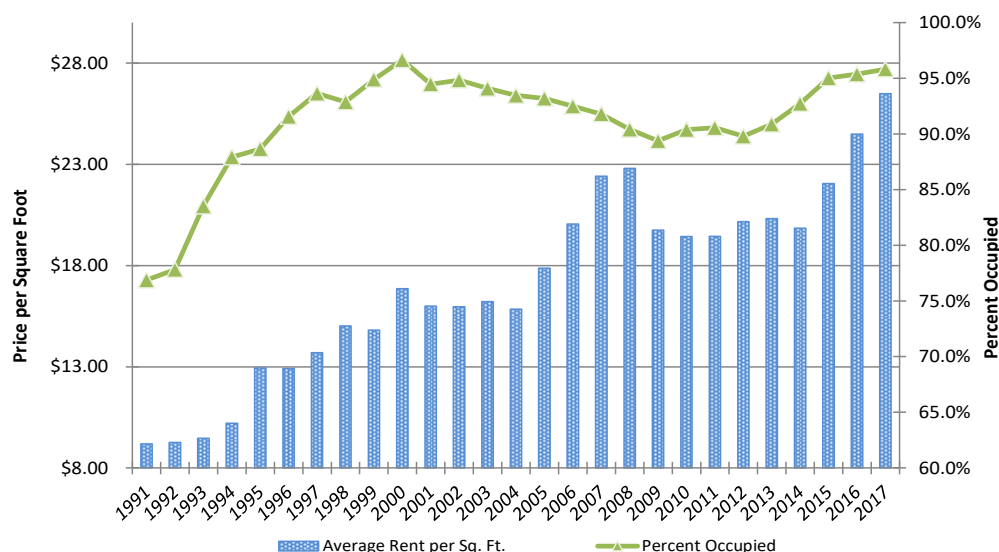
As of December 2017, there was over 1 million square feet of shopping center under construction, and over 2.4 million square feet planned. A large portion of the centers under construction are small neighborhood and strip centers, with square footage ranging between 30,000 and 120,000, with some including an anchor, in suburban areas north (Cedar Park and Round Rock), and southwest of Austin (Lakeway, Bee Cave, and Dripping Springs).

Table (9)
Austin MSA Retail Market Summary
December 1991 - December 2017

Year	Net Rentable Area	Total Leased	Percent Occupied	Net Additions (Sq.Ft.)	Absorption (Net Sq.Ft.)	Average Rent per Sq. Ft.
1991	18,615,066	14,312,101	76.9%	533,000	347,825	\$9.19
1992	19,010,914	14,792,832	77.8%	395,848	568,007	\$9.26
1993	19,286,206	16,105,328	83.5%	275,292	1,030,636	\$9.47
1994	19,337,926	17,001,589	87.9%	51,720	840,493	\$10.21
1995	21,400,556	18,973,430	88.7%	2,062,630	1,977,355	\$12.94
1996	21,751,044	19,916,993	91.6%	350,488	1,081,861	\$12.92
1997	21,716,879	20,336,836	93.6%	(34,165)	557,335	\$13.70
1998	23,319,543	21,655,479	92.9%	1,602,664	1,340,491	\$15.02
1999	24,161,615	22,929,209	94.9%	842,072	1,311,473	\$14.81
2000	25,615,824	24,757,048	96.6%	1,454,209	1,324,776	\$16.85
2001	26,476,299	25,014,511	94.5%	860,475	557,628	\$16.00
2002	26,584,952	25,212,128	94.8%	108,653	94,045	\$15.96
2003	28,536,372	26,847,571	94.1%	1,951,420	1,522,224	\$16.22
2004	28,583,179	26,712,487	93.5%	46,807	2,937	\$15.85
2005	30,874,435	28,773,109	93.2%	2,291,256	1,743,590	\$17.87
2006	32,771,340	30,310,047	92.5%	1,896,905	1,795,741	\$20.06
2007	37,611,194	34,520,864	91.8%	4,839,854	4,047,740	\$22.41
2008	38,779,569	35,062,096	90.4%	1,168,375	542,351	\$22.81
2009	40,258,726	35,984,670	89.4%	1,479,157	166,397	\$19.75
2010	40,754,222	36,839,716	90.4%	495,496	628,544	\$19.43
2011	40,550,682	36,722,398	90.6%	(203,540)	342,990	\$19.44
2012	40,839,470	36,675,163	89.8%	288,788	137,424	\$20.17
2013	41,287,481	37,517,184	90.9%	448,011	768,275	\$20.32
2014	42,275,220	39,197,490	92.7%	987,739	1,440,832	\$19.85
2015	42,257,776	40,158,957	95.0%	(17,444)	1,244,971	\$22.05
2016	43,068,884	41,073,219	95.4%	811,108	1,238,991	\$24.49
2017	43,929,528	42,091,051	95.8%	860,644	809,046	\$26.49

Source: Capital Market Research, Austin Area Retail Survey, December 1991 - December 2017

retail_sum_1217.xls



Austin MSA Multi-Family Demand Forecast

The table below provides an estimate of new multi-family rental units needed as a result of the population growth anticipated over the next ten years. Using the household forecast shown in Table (4), and assuming the maintenance of the percent renter (41.51%) based on the Austin MSA trends seen in the US 2010 Census, the number of new renter occupied households was calculated.

To estimate multi-family apartment unit demand, CMR relied on recent building permit data from the Texas A&M Real Estate Data Center, which shows multi-family units (with 5+ units) to be 92.84% of the total units built in the MSA in the past 10 years. Using this percentage in the demand forecast yields an average demand of 8,204 multi-family units per year from 2018 through 2027 needed in the Austin-Round Rock MSA.

Table (10)
Multi-Family Housing Demand
Austin-Round Rock MSA

Year	New Households	Percent Renter	New Renter Households	Multi-Family Demand
2018	19,512	41.51%	8,100	7,844
2019	19,707	41.51%	8,181	7,922
2020	19,990	41.51%	8,298	8,036
2021	19,980	41.51%	8,294	8,032
2022	20,209	41.51%	8,389	8,124
2023	20,385	41.51%	8,462	8,195
2024	20,669	41.51%	8,580	8,309
2025	20,976	41.51%	8,707	8,432
2026	21,170	41.51%	8,788	8,510
2027	21,495	41.51%	8,923	8,641

Source: Household Forecast from Table (4)

empgro_2018.xls

Note: Percent Renter (41.51%) based on 2010 Census

Multi-family demand based on building permits

issued in the MSA over the past 10 years (96.84%)

Austin MSA Condominium Demand Forecast

The condominium demand forecast was also derived for the Austin MSA using the household forecast (Table (4)) and owner households in the MSA according to the US 2010 Census (58.49%). Condo, or “attached” housing demand was estimated to be 10.32% of owner demand, based on the proportion of total MLS sales attributable to all “attached” housing in the Austin MSA in the past 10 years, and will average approximately 1,232 units a year from 2018 through 2027. It is quite likely that this demand will increase as the demand for condominium/attached housing development grows and becomes a more accepted product type in and around the Austin area.

Table (11)
Condominium/Attached Housing Demand
 Austin-Round Rock MSA

Year	New Households	Percent Owner	New Owner Households	Condominium Demand
2018	19,512	58.49%	11,412	1,178
2019	19,707	58.49%	11,527	1,190
2020	19,990	58.49%	11,692	1,207
2021	19,980	58.49%	11,686	1,206
2022	20,209	58.49%	11,820	1,220
2023	20,385	58.49%	11,923	1,230
2024	20,669	58.49%	12,089	1,248
2025	20,976	58.49%	12,269	1,266
2026	21,170	58.49%	12,382	1,278
2027	21,495	58.49%	12,572	1,297

Source: Household Forecast from Table (4)

empgro_2018.xls

Note: Percent Owner (58.49%) based on 2010 Census

Condominium Demand based on % of MLS Sales in the Austin MSA
 over the past 10 years (10.32%)

Austin MSA Office Demand Forecast

Total employment in the Austin area is expected to grow by an annual average of 2.01% over the next forecasted years (2018-2027) and 1.53% from 2027-2028. In order to determine the number of these jobs being created in need of office space, CMR utilized the Texas Workforce Commission's occupational breakdown of workers for each major industry group, including most professional, managerial, and clerical categories. CMR staff then reviewed each occupational category and assigned it an office percentage based on the type of work conducted by employees in each industry class. The results of this CMR analysis indicate that currently 41.6% of all workers in the Austin area are located in office space, however, the percentage by industry group range from a low of 4% in Hospitality to 100% in Finance. This percentage is predicted to decline slightly to 40.9% in 2026. CMR has also estimated that each office worker will need an average of 225 sq.ft. of space.

The final step to determine the proportion of office demand that is likely to be absorbed in multi-tenant office buildings, by removing "build-to-suit" office buildings. It is likely that multi-tenant leasing will dominate, as a substantial amount of new office space is now available, and the desire to move rapidly into already completed and relatively affordable space drives the decision-making in many companies. Based on the Travis Central Appraisal District (TCAD) records, multi-tenant space accounts for 67% of total office space demand. By using the employment forecast shown in Table (1), CMR has concluded that the Austin MSA will absorb an average of about 1,245,545 million square feet of "multi-tenant" office space annually from 2018 to 2028.

Table (12)
Office Employment Growth
Austin-Round Rock MSA

Year	Total Wage & Salary Emp.	Percent Office Employment	Office Employment	Annual Change	Office Space Absorption	Multi-Tenant Space Absorption
2018	1,067,600	41.6%	444,331	11,907	2,679,022	1,794,945
2019	1,095,000	41.5%	453,881	9,550	2,148,833	1,439,718
2020	1,114,400	41.3%	460,499	6,618	1,489,003	997,632
2021	1,131,000	41.2%	466,147	5,648	1,270,692	851,363
2022	1,157,600	41.1%	476,021	9,875	2,221,841	1,488,634
2023	1,179,500	41.1%	484,246	8,225	1,850,612	1,239,910
2024	1,201,100	41.0%	492,525	8,278	1,862,600	1,247,942
2025	1,221,700	41.0%	500,443	7,918	1,781,640	1,193,699
2026	1,240,800	40.9%	507,917	7,474	1,681,710	1,126,745
2027	1,259,800	40.9%	515,414	7,496	1,686,674	1,130,071
Total				90,886	20,449,245	13,700,994

Source: Employment Forecast from Table (1)

emp_gro_2018.xls

Note: Office Employment is estimated to range from 41.6% to 40.9% of Total Employment, based on CMR occupation survey

Employment to space ratio estimated to be 225 sq. ft. per person

Multi-tenant space estimated to be 67% of the total demand

Austin MSA Industrial Demand

Total employment in the Austin area is expected to grow by more than 18% over the next 10 years with Business and Professional Services along with Leisure and Hospitality and Education and Healthcare accounting for a majority (58.5%) of the increase. Due to the evolving nature of the industry mix, in order to reflect the number of “industrial” jobs created, it is important to examine the types of jobs being created by industry group.

The major industry groups that drive the demand for industrial space include Manufacturing, Wholesale Trade, Transportation, Warehousing, Public Utilities and other services. Most workers in these industry groups would be classified as blue collar workers and the space that they occupy would generally be categorized as bulk warehouse, distribution and manufacturing or R & D space. Also included in the industrial space category would be office/service center or “flex” space. Generally, this type of space is of “tilt-wall” construction with the category of space being defined by the “clear height” (from floor to ceiling) type of loading dock, the presence of windows and the percentage of air conditioned space.

By using the employment forecast shown in Table (1) and calculating industrial employment based on the evaluation of occupations discussed above, industrial employment is expected to increase by approximately 22,100 workers between 2018 and 2027. Assuming an average ratio of 500 sq. ft. per employee, this employment increase should result in a demand for 17.05 million sq. ft. of industrial space or approximately 740,360 million square feet annually from 2018 to 2027. New industrial space built will be a mix of private and public, single tenant buildings and multi-tenant lease space, with the multi-tenant space accounting for approximately 67% of the total.

Table (13)
Industrial Employment Growth
Austin-Round Rock MSA

Year	Total Wage & Salary Emp.	Percent Industrial Employment	Industrial Employment	Annual Change	Industrial Space Absorption	Multi-Tenant Space Absorption
2018	1,067,600	16.8%	179,900	6,200	3,100,000	2,077,000
2019	1,095,000	16.9%	184,800	4,900	2,450,000	1,641,500
2020	1,114,400	16.7%	186,600	1,800	900,000	603,000
2021	1,131,000	16.6%	187,500	900	450,000	301,500
2022	1,157,600	16.4%	189,700	2,200	1,100,000	737,000
2023	1,179,500	16.2%	191,100	1,400	700,000	469,000
2024	1,201,100	16.0%	192,500	1,400	700,000	469,000
2025	1,221,700	15.8%	193,600	1,100	550,000	368,500
2026	1,240,800	15.7%	194,600	1,000	500,000	335,000
2027	1,259,800	15.5%	195,800	1,200	600,000	402,000
Total				22,100	11,050,000	7,403,500

Source: Employment Forecast from Table (1)

emp_gro_2018.xls

Note: Industrial Employment is estimated to range from 12.7% to 11.4% of Total Employment, based on CMR occupation survey

Employment to space ratio estimated to be 500 sq. ft. per person

Multi-tenant space estimated to be 67% of the total demand

Austin MSA Retail Demand Forecast

There is a strong relationship between the growth in population and households and the increase in demand for retail services and space. Generally retail demand forecasts are prepared by combining the growth in households with an estimate of future household income. Historically, household growth in the region has been driven by in-migration and this is likely to continue for the foreseeable future. Because there are no published statistics on the income level of migrants to the Austin MSA, CMR has suggested a simple but compelling alternative.

Over the last 16 years, there has been a very strong correlation between total population and total occupied square feet of retail space in the Austin region. Using the US Census Annual population estimates and the Capitol Market Research database of multi-tenant retail space, CMR has concluded that this relationship is equal to approximately 20 square feet of retail space per person. There are annual anomalies based on market conditions, construction schedules, and consumer confidence, but the correlation over the long term is undeniably strong. Based on the assumption that this relationship will continue, a forecast of annual retail demand was prepared and is shown in Table (12) below.

Table (14)
Multi-Tenant Retail Demand
Austin-Round Rock MSA

Year	Population Increase	Sq.Ft. Demand Per Capita	Multi-Tenant Retail Demand (Sq.Ft.)
2018	50,341	20	1,006,820
2019	50,845	20	1,016,890
2020	51,575	20	1,031,490
2021	51,549	20	1,030,980
2022	52,139	20	1,042,770
2023	52,595	20	1,051,890
2024	53,326	20	1,066,520
2025	54,119	20	1,082,380
2026	54,618	20	1,092,350
2027	55,457	20	1,109,140
2028	56,591	20	1,131,820

Source: Population Increase from Table (4) emp_gro_2017.xls
Sq.Ft. per Capita based on ratio of population to occupied
Retail Sq.Ft. for the past 16 years

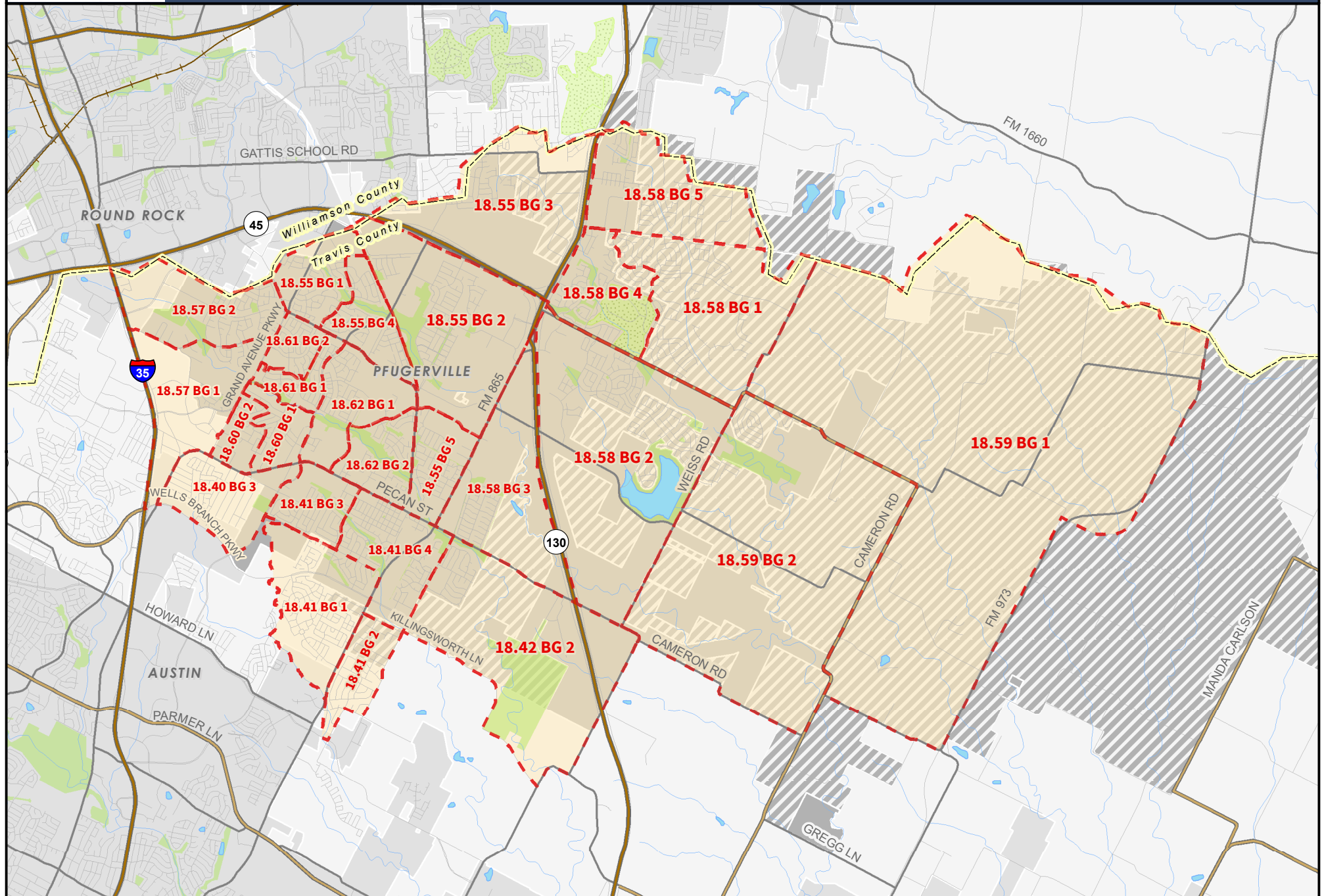
MARKET AREA ANALYSIS

Subject Property Market Definition & Justification

In order to accurately represent the demand for residential, office, and retail uses in the City of Pflugerville, regional demand must be disaggregated to the neighborhood or market area level. This process of disaggregation is often accomplished by segmenting a geographic region into residential submarkets or neighborhoods. The neighborhood for the subject property must be small enough to capture relevant local trends and product preferences, but it also must be large enough to capture all of the current and potentially competitive properties along with important employment and activity generators.

The subject is the City of Pflugerville, in Travis County, Texas. The market area defined for this project is most appropriately defined as the Pflugerville Market Area, and is mainly comprised of the City of Pflugerville, as well as small portions of the City of Austin south along Interstate 35, and the City of Round Rock in the northwest corner of the market area. The market area is generally delineated by the Williamson County line to the north, FM 973 to the east, Cameron Road, Killingsworth Road, and Wells Branch Parkway to the south, and Interstate 35 to the west. It should be noted that there is a small portion of City of Pflugerville ETJ located outside of the market area, to the north and east. Land uses in the general area that are considered to be important include both established and new single family developments, a concentration of commercial along Interstate 35 and increasingly along State Highway 130 Toll, as well as Downtown Pflugerville, and large tracts of vacant and ranchland to the east.

Finally, the definition of the primary market area must take into consideration the availability of relevant information, particularly demographic area. Census geography is most often used to delineate market areas because the data available from the census is critical to thorough and relevant analysis of the market. In the case of this market area, the boundaries are made of up of Census Tract Block Groups, which are subsections of census tracts. This area is made up of 2010 Block Groups 18.40 BG 3, 18.41 BG 1, 2, 3, and 4, 18.42 BG 2, 18.55 BG 1, 2, 3, and 4, 18.57 BG 1 and 2, 18.58 BG 1, 2, 3, 4, and 5, 18.59 BG 2, 18.60 BG 1 and 2, 18.61 BG 1 and 2, and 18.62 BG 1 and 2.



Pflugerville Market Area Demographic Trends

The Pflugerville market area has historically been a smaller suburban town, nestled between Austin and Round Rock. Over the last 15 years this area has been undergoing a rapid transition into a major suburban residential community within the Austin-Round Rock MSA. The growing population is drawn to the area because of the affordability of living and family friendly atmosphere.

More recently in the subject market area, the latest American Community Survey (ACS) 5 Year Survey (2012-2016), shown in Table (15) as 2014 data, illustrates that the defined Pflugerville market area has experienced continual population and household growth since 2000 when the area had 33,814 people living in just 10,888 households. Total population in the subject area census tracts has boomed, from 34,005 in 2000 to 84,137 in 2014, an average annual increase of 6.68%.

Table (15)
Population and Household Trends
Pflugerville Market Area

	2000	2010	2014	Annual Change (2000 - 2014)
Population	34,005	71,498	84,137	6.68%
Households	10,888	23,682	28,281	7.06%
Population in Households	33,814	71,313	83,922	6.71%
Average HH Size	3.11	3.01	2.97	-0.32%
Renter Households	1,074	5,479	6,551	13.79%
Percent Renter	9.86%	23.14%	23.16%	6.29%

Source: US Bureau of the Census, 2000, 2010, ACS 2012-2016

demcalc.xls

Note: The ACS 2012-2016 is a rolling 5-year survey, meant to represent the median year of 2014.

Prepared by Capitol Market Research, April 2018

Pflugerville Market Area Income Distribution

According to the U.S. Census data in 1999, 60.1% of the market area households reported income of more than 120% of MSA median household income (MHI), while just 6.5% reported income of less than 50% of the MHI. The percentage of households reporting income less than 50% of MHI increased to 14.1% in 2014, while the percentage of middle income households (those reporting income between 50% and 100% of MHI) has also increased, from 21.7% to 25.8%. The percentage of households making more than 120% of MHI decreased to 49.3%, however, the highest income category still makes up the majority of households in the market area.

The percentage of households making less than 100% of MHI and below accounted for the majority of household increase in the market area (as shown in Table (14) below). This data shows the changing demographic character of the market area. Lower income households are moving outside of Austin to attractive suburbs such as Pflugerville, where there are a variety of new housing choices that present more affordable options.

Table (16)
Change in Income Distribution
Pflugerville Market Area

Income Category	1999 Households	Share	2014 Households	Share	1999 - 2014 Increase	Change in Share
<i>Less than 50% MHI</i>	711	6.5%	3,994	14.1%	3,283	7.6
<i>50-60% MHI</i>	393	3.6%	1,239	4.4%	845	0.8
<i>60-80% MHI</i>	925	8.5%	2,776	9.8%	1,851	1.3
<i>80-100% MHI</i>	1,048	9.6%	3,294	11.6%	2,246	2.0
<i>100-120% MHI</i>	1,266	11.6%	3,030	10.7%	1,764	-0.9
<i>More than 120% MHI</i>	6,551	60.1%	13,947	49.3%	7,396	-10.8
Total	10,895	100.0%	28,281	100.0%	17,386	
Market Area MHI	\$66,678		\$80,514		\$13,836	
Austin MSA MHI	\$48,950		\$66,093		\$17,143	

Source: US Bureau of the Census, 2000, American Community Survey, 2012-2016

demcalc.xls

Note: The ACS 2012-2016 is a rolling 5-year survey, meant to represent the median year of 2014.

Note: MHI is median household income.

Pflugerville Employment Profile

The Austin area has recently succeeded in capturing a number of high-tech and service oriented companies. The Austin area has been especially attractive for the public sector, financial institutions and the hospitality and service industries due to the proximity to the Texas State Capitol and the University of Texas. Companies located in Pflugerville have access to an Austin metropolitan area workforce surpassing three-quarters of a million people, as well as connection to the Austin Bergstrom International Airport via State Highway 130 Toll, and an excess of land availability. Pflugerville also has easy access to Interstate 35, which offers access north to Round Rock and Georgetown, and south to Austin, as well as the east-west corridors of State Highway 45 and US Highway 290. Based on surveys from the Austin Chamber and the Pflugerville Community Development Corporation, as well as CMR, the Pflugerville market area currently contain 5,507 jobs at 15 major employers (those with 100+ employees).

The Pflugerville market area's largest employer, Pflugerville Independent School District (PFISD), employs approximately 3,097 people, as the market area contains 21 elementary schools, six middle schools, and six high schools in PISD, while the City of Pflugerville employs approximately 380 employees. There are several larger private sector companies in Pflugerville, including Mtech (268 employees), Cash Construction (250 employees), and Austin Foam Plastics (250 employees).

Pflugerville has seen substantial employment growth along the major transportation corridors which connect the residential subdivisions and communities to the larger Austin metropolitan area. The State Highway 130 Toll corridor in east Pflugerville has witnessed a significant amount of growth, including Stone Hill Town Center, Falcon Pointe, and 130 Commerce Center. There are several new developments under construction in Pflugerville, including a 20,000 square foot office facility for MW Builders, which will employ 45 people, a Costco which will offer approximately 200 jobs, and the new Accent Foods regional headquarters distribution and warehouse center, which will employ 100 people. The currently under construction Baylor Scott & White Medical Center, located near State Highway 130 is expected to open the fall of 2018, and employee 125 people initially.

According to the US Census's 2015 LODES (Origin - Destination Employment Statistics) data, the market area has a total of 17,573 primary jobs. Census tract 18.41 Block Group 3 has over 5,000 primary jobs alone, due to the PFISD headquarters, which will include employees in other areas of the school district. A map showing the distributing of market area jobs by census tract block group, and a table listing major employers are shown on the following pages.

Table (17)
Major Employers
Pflugerville (78660)

Company	2012	2014	2018	Description
ACI Group (Avant Technologies)*	200	200	155	Computer memory modules (DRAM & Flash) mfg. (Hdq.)
Advanced Integration Technologies	95	95	102	Gas panel manufacturer
AirCraft, Inc.^	100	100	100	HVAC systems design and installation
Austin Foam Plastics	300	300	250	Plastic-based cushioned packaging mfg. (Hdq.)
Baylor, Scott & White	...	...	125	Hospital
Cash Construction Company^	250	250	250	Engineering Construction Services
City of Pflugerville	342	350	380	Government
Community Impact Newspaper	67	67	109	Community newspaper publisher (Hdq.)
Cortec Precision Metal	...	...	122	Sheet metal fabricator
Fedex	...	...	124	Shipping & delivery services
Flextronics^	195	195	195	Electronic Manufacturing Services Provider
Living Spaces	...	...	100	Furniture warehouse & distribution
Mitech	200	200	268	Commercial HVAC & electrical services (Hdq.)
Pflugerville Independent School District	2,573	2,662	3,097	Public education
Ultra Clean Technology (formerly Advanced Integration Technologies)	...	95	130	Electronics parts mfg for semiconductor fab machinery
	4,322	4,514	5,507	

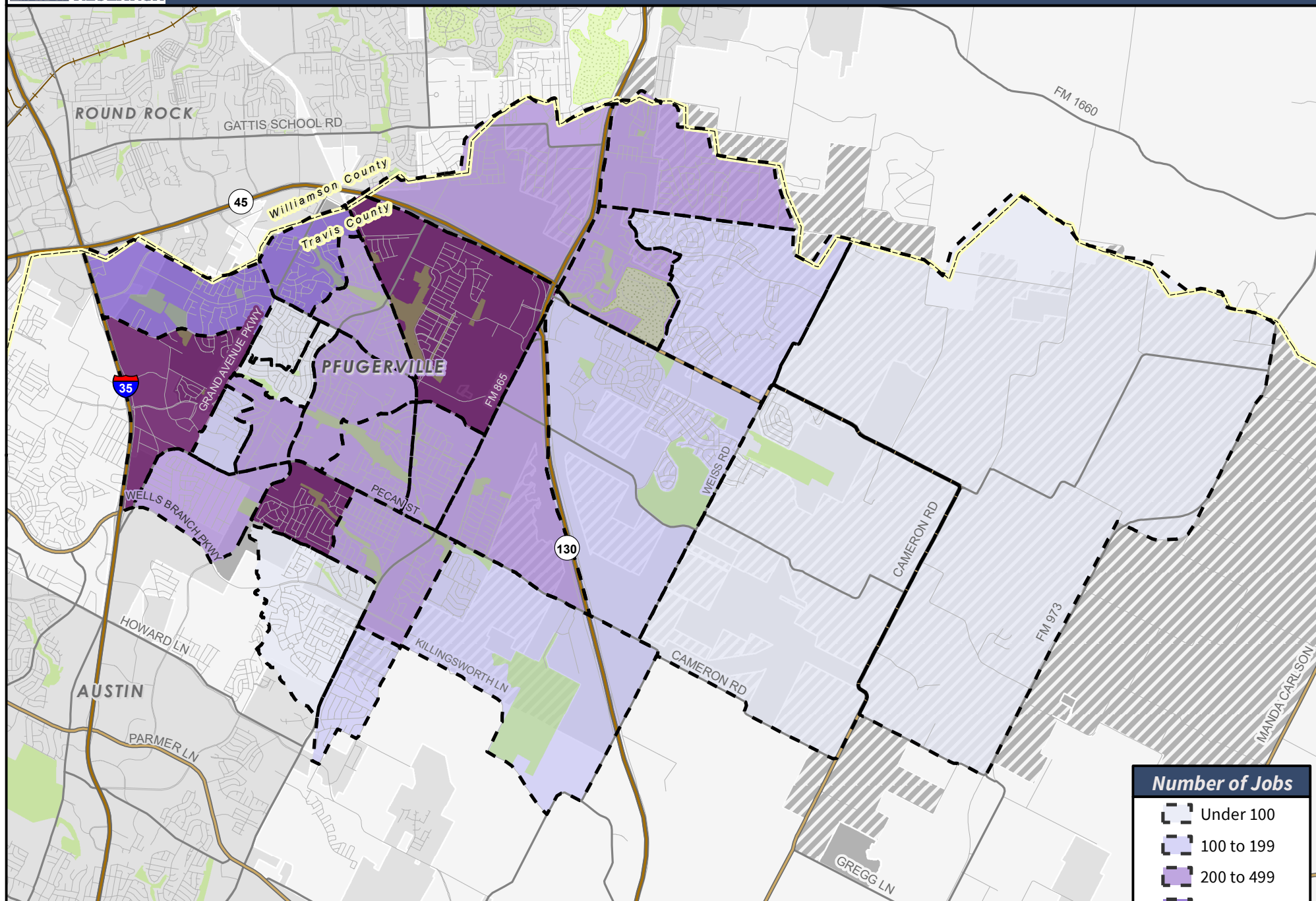
maj_emps.xls

Prepared by Capital Market Research, April 2018

Employment data gathered from CIMA Survey, Austin Chamber 2012, 2014, and 2018, and the Pflugerville Community Development Corporation Major Employers List

Notes: ^Historical information for 2012 and 2014 not available, used current numbers

*2014 numbers not available, used 2012








Date: April 2018

Source: US Census & LODS Employment Data (2015)

Path: C:\GIS\Projects\2018\Pflugerville\employment.mxd



Number of Jobs

-  Under 100
-  100 to 199
-  200 to 499
-  500 to 1,499
-  1,500 +

Pflugerville Market Area Population Projections

The population growth experienced in the Pflugerville market area accounted for 7.34% of the growth in the MSA between 2000 and 2014, according to the US 2000 Census and the ACS 2012-2016 5-year survey. This strong historical capture rate, along with the current market area trends, the continued growth in the area, and the large inventory of vacant developable land suggests an ability to accommodate the demand. Viewing all of these factors together, the capture rate is expected to remain steady through 2028. Using the MSA population forecasts from the Texas State Data Center (Scenario 1.0) along with a maintenance of household size in the market area from the US 2010 Census (3.01), a forecast for population and household growth in the market area is shown in Table (18) below. It is estimated that the Pflugerville market area will grow at an average annual rate of 1,697 households per year, from 2018 through 2028.

Table (18)
Population and Household Forecast
Pflugerville Market Area

Year	Forecasted MSA Population Growth	MARKET AREA FORECAST			
		Capture Rate	New Population	Household Size	Net HH Increase
2018	63,675	7.34%	4,676	3.01	1,553
2019	64,869	7.34%	4,764	3.01	1,582
2020	66,141	7.34%	4,857	3.01	1,613
2021	66,847	7.34%	4,909	3.01	1,630
2022	68,232	7.34%	5,011	3.01	1,664
2023	69,063	7.34%	5,072	3.01	1,684
2024	70,610	7.34%	5,185	3.01	1,722
2025	72,006	7.34%	5,288	3.01	1,756
2026	73,035	7.34%	5,363	3.01	1,781
2027	74,590	7.34%	5,478	3.01	1,819
2028	76,456	7.34%	5,615	3.01	1,865

Prepared by: Capitol Market Research, April 2018

demcalc.xls

Notes: MSA population forecast based on the population forecast obtained from Texas State Data Center, Scenario 1.0, 2010 Census. Capture Rate based on market area % of growth in the MSA from 2000 through 2014. Household size based on US 2010 Census.

Pflugerville Market Area Apartment Market Conditions

Overview

In April 2018, Capitol Market Research surveyed 15 active (open and leasing) apartment communities in the Pflugerville market area, which currently contain a total of 4,163 units. The market area occupancy is currently 86.5%, which is down 3.0% from December 2017 (89.5%). Average rents are currently \$1.20 per square foot, a \$0.02 decrease since December 2017. Out of the 15 active projects, 13 have been built (completed) since the beginning of 2000, with six that have been completed since the beginning of 2010 and two open and leasing units, but still under construction. A historical summary of the market area rents and occupancy is shown on Table (19) on the following page.

Occupancy and Absorption Trends

Occupancy rates in the Pflugerville market area remained steady between December 2005 and December 2007. However, after December 2007, the occupancy rates dropped considerably to 80.8% in December 2008, when 396 units were added to this small market area, in the middle of a national recession. Occupancy rebounded to 89.7% the following year (2009), despite an addition of 280 new units, rising to a high of 98.1% in December 2012. Occupancy in the market area has remained in the high to mid-90% range from through 2016. However, after three years of continual new unit deliveries (1,480 units), the market area succumbed to a slight overbuilt scenario, dropping occupancy rates to 89.5% in 2017. The current market area occupancy has dropped further, to 86.5% occupied. There are currently three new properties, The Emerson, Biltmore at the Park, and Estraya Falcon Pointe which are in lease-up and artificially lowering occupancy rates. Without these properties, the “stabilized” occupancy of the market area is 92.7%.

Absorption of new units in the Pflugerville market area has generally coincided with new construction. From 2010 through the end of 2017, the market area absorbed 1,651 net units, 89.2% of the number of new units (1,850 units) completed over that time period. The absorption of 530 units in 2016 is the highest annual rate the market area has absorbed and may reflect a maturing of the market as the absolute number of units increases and the diversity of available product expands.

New Construction

Between 2010 and 2017, new apartment communities were continually opening in the Pflugerville market area, adding a net of 1,850 units. The development of the Stone Hill Town Center, off of State Highway 130 Toll, added Century Stone Hill (formerly Mansions at Stone Hill) in 2013, offering both “townhome” style units and four-story elevator served flats. Construction continued with a Phase II of Riverhorse Ranch and Villas at Spring Trails in 2015. The following year (2016), saw a Phase II of Mansions at Stone Hill, and Townes on 10th, a townhome style community. The Emerson completed construction at the end of 2017 and is currently in lease-up. Two new properties opened in 2018 and are still under construction, Biltmore at the Park and Estraya Falcon Pointe. All eight of

the new properties since 2010 are market rate, with a current average rent per square foot of \$1.26. Multifamily construction in the market area has seen a variety of construction types, including “townhome” style, traditional three story walk up construction, with more “urban” style construction concentrated in the Stone Hill Town Center.

Table (19)
Apartment Market Summary
Pflugerville Market Area

Year	Number of Units	Units Occupied	Occupancy Rate	Unit Change	Annual Absorption	Rent per Sq. Ft.
2005	1,284	1,190	92.7%	...	...	\$0.75
2006	1,284	1,198	93.3%	0	8	\$0.77
2007	1,404	1,352	96.3%	120	154	\$0.83
2008	1,800	1,454	80.8%	396	102	\$0.82
2009	2,080	1,866	89.7%	280	412	\$0.81
2010	2,080	1,949	93.7%	0	83	\$0.86
2011	2,080	2,024	97.3%	0	75	\$0.89
2012	2,080	2,041	98.1%	0	17	\$0.93
2013	2,450	2,402	98.0%	370	361	\$1.03
2014	2,450	2,329	95.1%	0	(73)	\$0.96
2015	2,998	2,812	93.8%	548	483	\$1.13
2016	3,506	3,342	95.3%	508	530	\$1.19
2017	3,930	3,517	89.5%	424	175	\$1.22
Apr-18	4,163	3,601	86.5%	233	84	\$1.20

Source: Capitol Market Research December 2005 - April 2018

histocc_pfl.xls

Includes all market rate, mixed-income, and Tax Credit apartment communities with 50+ units

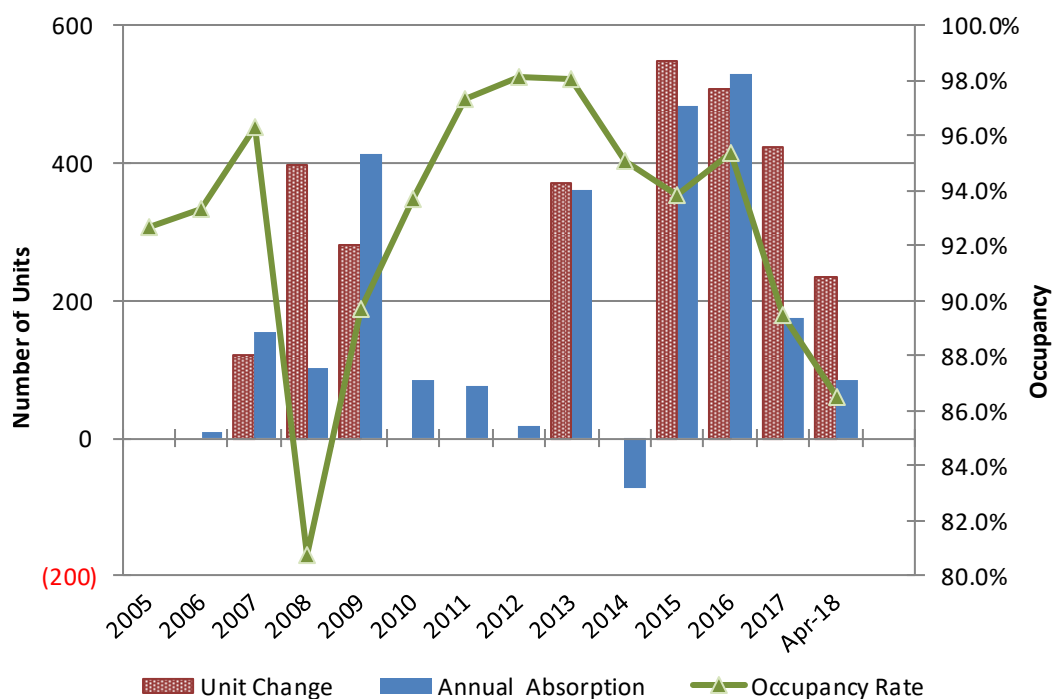


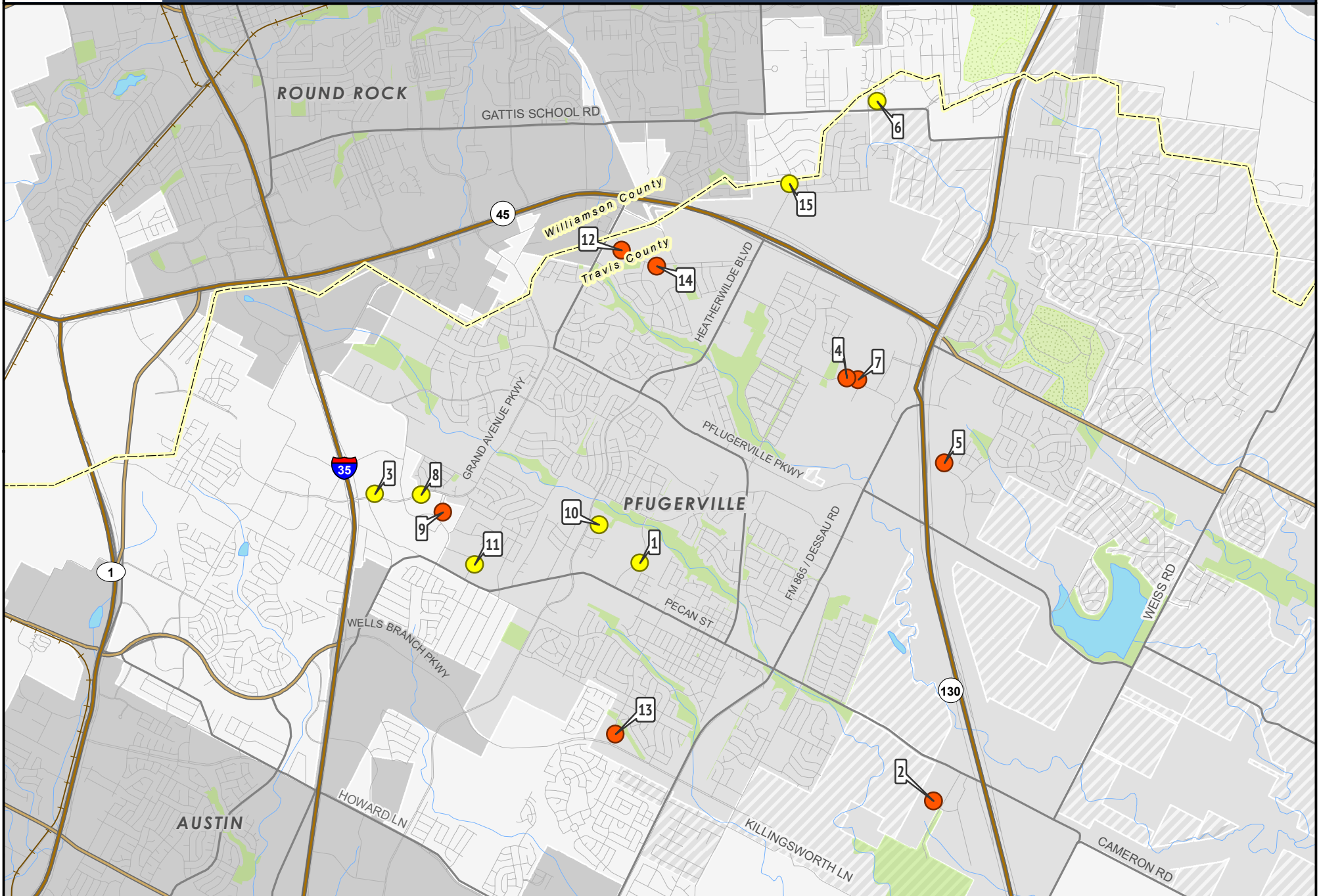
Table (20)
Apartment Inventory
Pflugerville Market Area

Map No.	Project	Address	City	YOC	Total Units	Rentable Units	Occupancy	Average Rent	Average Rent per Sqft
1	Autumn Ranch at Swenson Farms	413 Swenson Farms Blvd	Pflugerville	2008	336	336	88.1%	\$1,117	\$1.07
2	Biltmore at the Park	10621 Biltmore Ave.	Pflugerville	2018	254	48	33.3%	\$1,067	\$1.15
3	Broadstone Grand Avenue	1720 Grand Avenue	Austin	2009	280	280	96.1%	\$1,099	\$1.32
4	Century Stone Hill	1225 Town Center Dr.	Pflugerville	2013	370	370	93.0%	\$1,207	\$1.19
5	Estraya Falcon Pointe	2132 Falcon Village Lane	Pflugerville	2018	324	185	34.6%	\$1,189	\$1.25
6	Links At Forest Creek	20404 Poppy Hills Trail	Hutto	2008	220	220	90.0%	\$1,067	\$1.17
7	Mansions at Stone Hill	1316 Town Center Dr	Pflugerville	2016	415	415	96.1%	\$1,490	\$1.43
8	Riverhorse Ranch	1525 Grand Avenue Pkwy	Austin	2002	324	324	97.2%	\$1,114	\$1.19
9	Riverhorse Ranch II	1525 Grand Avenue Pkwy	Austin	2015	278	278	95.0%	\$1,186	\$1.24
10	Rosemont At Heather Bend (MI)	16701 Heatherwilde Blvd	Pflugerville	2004	256	256	91.0%	\$957	\$0.93
11	Sage 1825	15895 Foothill Farms Loop	Pflugerville	2001	454	454	87.2%	\$1,144	\$1.20
12	The Emerson	1221 New Meister Lane	Pflugerville	2017	384	384	60.9%	\$1,187	\$1.26
13	Townes on 10th	1200 S 10th	Pflugerville	2016	93	93	90.3%	\$1,669	\$1.11
14	Villas at Spring Trails	901 New Meister	Pflugerville	2015	270	270	93.0%	\$1,169	\$1.25
15	Westchester Woods (MI)	19600 Heatherwilde Blvd	Pflugerville	2002	250	250	95.2%	\$1,023	\$0.99
Total/Average					4,508	4,163	86.5%	\$1,170	\$1.20

Source: Capital Market Research Apartment Survey, April 2018

(AH) = Affordable Housing, (MI) = Mixed Income

Inventory_apl.xls



Pflugerville Market Area Attached Housing Market Trends

Overview

In April 2018, Capitol Market Research surveyed two completed and three active and under construction projects that are currently closing and “pre-selling” units in the Pflugerville market area. Taken together, these five projects contain a total of 412 completed units, with an additional 106 units planned or under construction. Two of the five projects are considered “sold out” with no remaining “developer” inventory, and three are actively selling units, while still under construction. As of April, 409 of the total 518 units in the completed and active projects are currently under contract or sold. The weighted average unit price among completed and active projects is \$168,108 for 1,534 sq. ft. which equates to \$108 per square foot. The absorption rate among these projects varies, with an average rate of 3.14 units per month. Falcon Pointe achieved a rate of 5.17 sales per month when it opened, followed by Carrington Court (4.29 per month), and Parkside at Northtown with sales of 3.85 units per month.³

Completed Projects

Two of the five surveyed projects are considered completed, and “sold out”, with the developer having sold all units in their project. These projects, listed in Table (22), were built from 2007 to 2017, and range in size from 96 units to 144 units. These projects range in average price (original sales price) from \$139,629 at Parkside at Northtown to \$196,195 at Highland Park. The average unit size ranges from 1,358 square feet at Parkside at Northtown to 1,486 square feet at Highland Park. The average price for the two completed and “sold out” projects is \$162,255 for a 1,409 square foot unit (\$115 a square foot).

Projects Active & Under Construction

There are currently three “attached” housing projects under construction in the Pflugerville market area. Out of the 278 planned units in these three projects, 172 have been completed, and 169 (60.8%) have been sold. Average unit prices range from \$220,238 at Carrington Court (\$133 per square foot) to \$233,108 at Falcon Pointe (\$122 per square foot). Average unit size ranges from 1,336 square feet at Fort Dessau to 1,908 square feet at Falcon Pointe. The average price for the active and under construction projects is \$168,108 for a 1,306 square foot unit (\$129 per square foot). Fort Dessau has broken ground but none of the units have been completed. D.R. Horton has started marketing, but as of May 10, 2018, they did not have pricing established.

Absorption Rates

The average number of units sold per month among the completed projects in the market area was 2.79 units. The highest rate of absorption among completed project was at Parkside at Northtown (3.85 units per month), followed by Highland Park with 1.22 units per month.

For active and under construction projects, the average pace of sales is currently 3.44 units per month. Falcon Pointe and Carrington Court have the highest average gross sales rates with 5.17 and

³ Absorption in completed projects is based on recorded deed records, from the time the project began accepting pre-sale reservations to the date of last recorded sale.

4.29 sales per month, respectively. These properties are more like “custom” homes, where homeowners can select from four floorplans and choose different exterior elevations. In this market, it appears that the rate of sales is dependent (at least partially) on the developer’s willingness to invest in “model” homes and an on-site sales team. All of the active developments have dedicated sales offices and agents to assist the potential home buyer.

Recorded MLS Sales

The Pflugerville market area is still relatively new to the “attached” housing market, with MLS sales data (including both new and resales) showing a small, but growing, number of total sales. The number of recorded MLS sales of townhomes, condos, and duplexes remained under 20 per year from 2005 through 2014, increasing to 25 in 2015. Since then, sales have continually increased, with a recent high of 47 sales in 2017.

Average sales price increased between 2005 and 2008, when it reached \$94,553, or \$87 per square foot. Sales prices fell slightly in 2009 and 2010, and then sharply in 2011, but after 2011 the housing market has shown signs of a strong recovery with prices increasing by 21.7% in 2012 and 42.4% in 2013. Since then, the trend for higher unit prices has continued, reaching \$97,048 in 2013, and closing 2014 with an average price of \$105,519. Since 2014, the average sales price has increased by an average annual rate of 19.4%, and most recently (through the end of March 2018), prices have climbed to \$213,218. The average unit size in the Pflugerville market area has also continued to increase since 2014, when the average size of a unit sold was 1,088 square feet. Since then, average unit size has been increasingly larger, with the current (March 2018) average unit size of 1,584 square feet.

Table (21)
Attached Housing Sales
Pflugerville Market Area

Year	Total Sales	Average Sales Price	Average Sq.Ft.	Average \$/Sq.Ft.	Average DOM
2005	13	\$76,302	1,116	\$68	79
2006	19	\$79,845	1,054	\$76	46
2007	17	\$83,625	1,043	\$80	53
2008	11	\$94,553	1,088	\$87	66
2009	16	\$92,208	1,076	\$86	57
2010	4	\$91,275	1,107	\$82	19
2011	14	\$56,029	1,117	\$50	156
2012	17	\$68,165	1,058	\$64	71
2013	15	\$97,048	1,312	\$74	63
2014	18	\$105,519	1,088	\$97	28
2015	25	\$131,144	1,144	\$115	16
2016	39	\$153,689	1,257	\$122	28
2017	47	\$193,259	1,434	\$135	38
Apr-18	27	\$213,218	1,584	\$135	87

Source: Austin Board of Realtors, MLS Database; Census Tracts

condo_sum.xls

Prepared by Capitol Market Research, April 2018

MLS Search Conditions: Condo, Townhome and Duplex

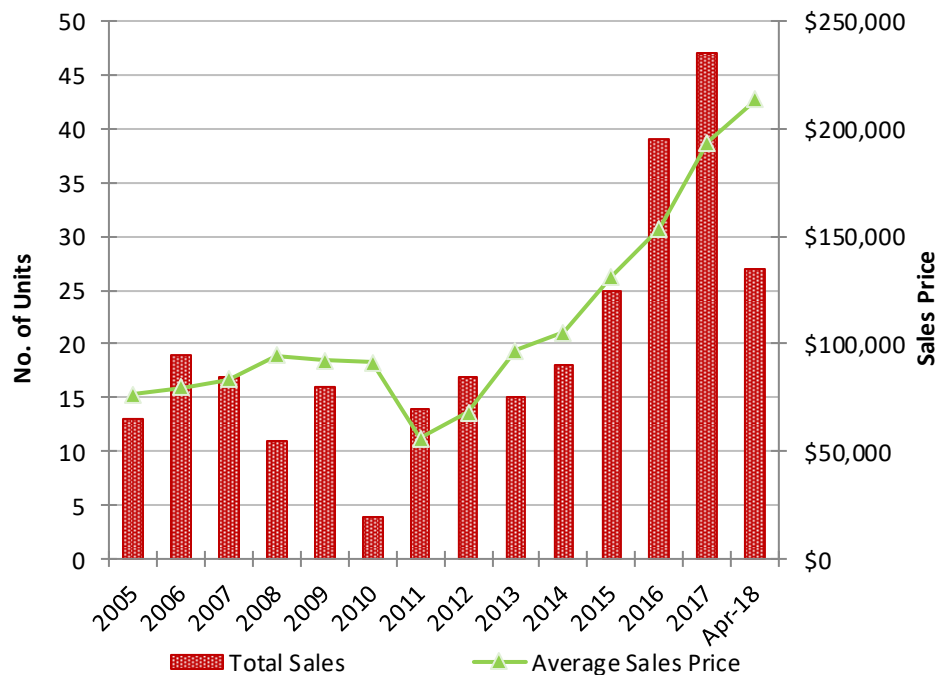


Table (22)
New Condominium Sales Activity
Pflugerville Market Area

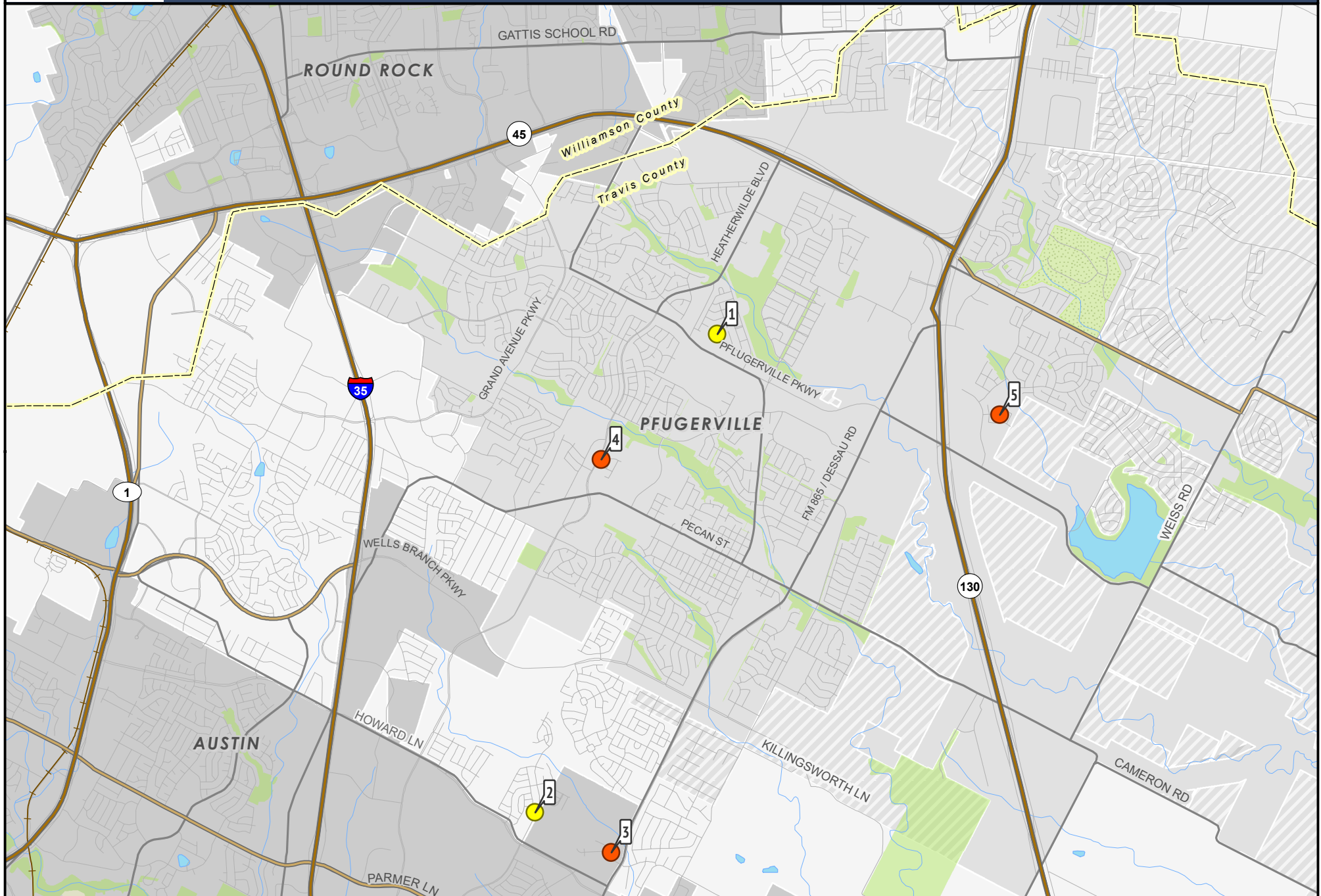
Completed "Sold Out" Projects										
Map No	Project	Address	YOC	Planned Units	Completed Units	Contracts/ Sales	Date of Initial Marketing	Sales/ Month	Average Price	Price Per Sqft
1	Highland Park	Katmai Circle	2017	96	96	96	Jan-06	1.22	\$196,195	\$132
2	Parkside at Northtown	Harris Ridge Boulevard	2007	144	144	144	Jul-07	3.85	\$139,629	\$103
Total/Averages				240	240	240		2.79	\$162,255	\$115
Active and Under Construction Projects										
Map No	Project	Address	YOC	Planned Units	Completed Units	Contracts/ Sales	% Occ	Date of Initial Marketing	Sales/ Month	Price Per Sqft
3	Fort Dessau	Fort Dessau Road	2018	70	0	0	0.0%	Apr-18	...	...
4	Carrington Court	N Heatherwilde Boulevard	2017	136	136	133	97.8%	Sep-15	4.29	\$133
5	Falcon Pointe	Dillon Pond	2018	72	36	36	50.0%	Sep-17	5.17	\$122
Total/Averages				278	172	169	60.8%		3.44	\$129

Capital Market Research, April 2018

Note: Real Estate Agents, Travis County Appraisal & Deed Records

Average sales price and average square footage for completed projects from Austin MLS historical sales

Condo Summary.xls



Pflugerville Market Area Office Market Conditions

Overview

In April 2018, Capitol Market Research surveyed eight multi-tenant office buildings in the Pflugerville market area that together comprise a total of 107,120 square feet of rentable space. Currently, the market area occupancy is 75.2%. Average rents are currently \$17.71 per square foot on a “gross” lease basis. All buildings are class “B” or class “C” construction quality, and only one building, with 35,588 square feet, has been built since 2010.

Occupancy & Average Rents

The current (April 2018) “direct” occupancy in the market area is 75.2%. Currently, there is 26,593 sq. ft. of “direct” available space in the market area. Only one of the eight properties, 15300 FM 1825, is 100% leased. Among the other seven properties with direct space available, current occupancy rates range from 10.6% to 94.3%.

Currently (April 2018), the average gross rental rate for the Pflugerville market area is \$17.71 per square foot. This ranges from \$12.00 at 1406 Three Points Drive and Park Place to \$22.70 at the First State Bank Building.

New Construction

The Pflugerville market area contains only eight multi-tenant office buildings that have a combined total of 107,120 square feet of rentable space. Seven of the eight office buildings in the market area are small, with less than 20,000 square feet of rentable space. The majority of the properties in the market area are older, with five of the eight properties built before 2000. Only one new property, the Heatherwilde Professional and Medical Center, has been built since 2010.

It should be noted that there are also several small office condominium projects in the area, and the opportunity to buy office space is appealing to many small business owners whose space requirements do not change on an annual basis.

Table (23)

Office Inventory

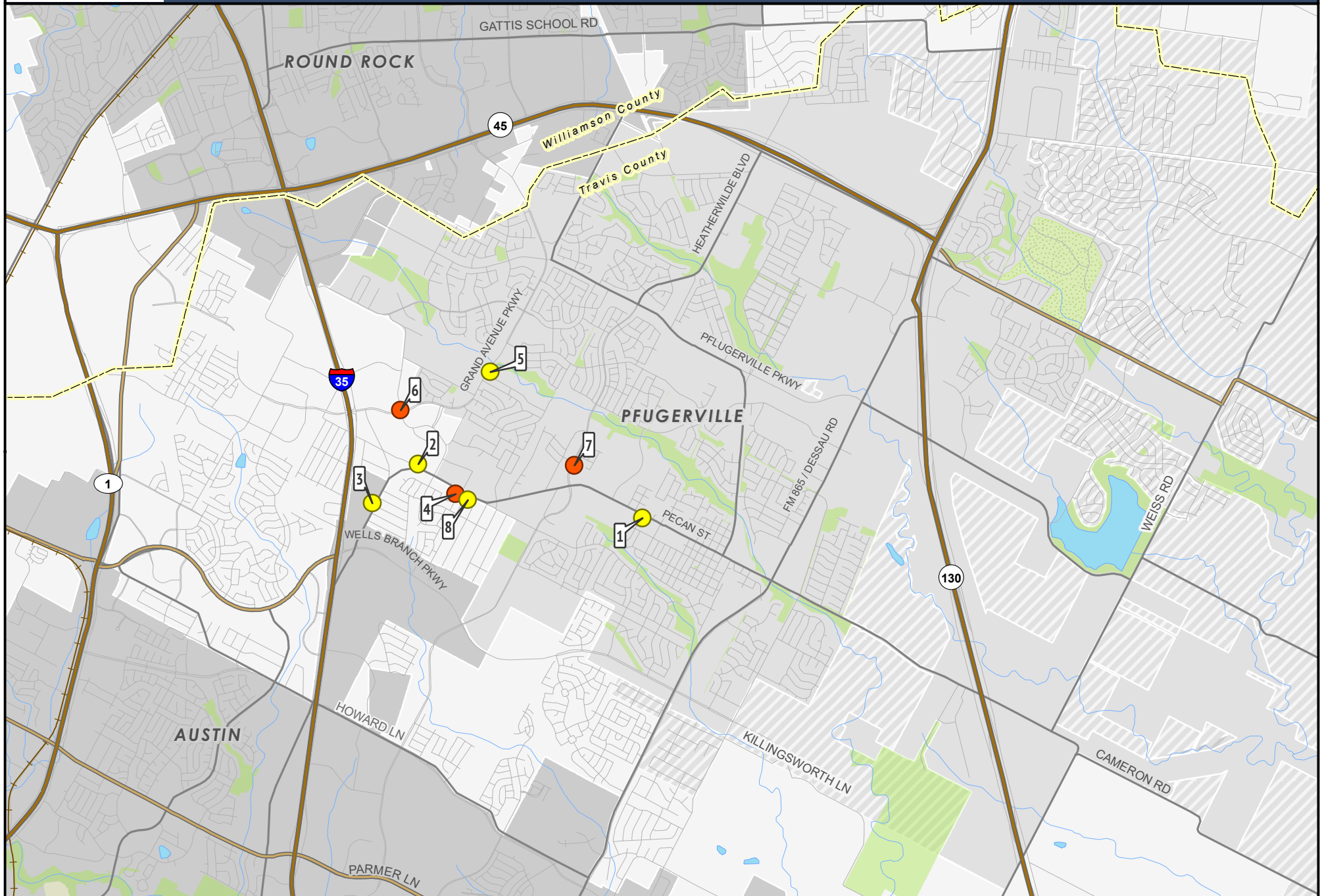
Pflugerville Market Area

Map No.	Project	Address	City	YOC	Class	Net Rentable Area (NRA)	Direct Vacant	Occupancy	Low Rent (\$/sq. ft.)	High Rent (\$/sq. ft.)	Treatment	Expenses	Average Gross Rent
1	12th Street Office Park	103 12th St.	Pflugerville	1985	C	11,600	1,353	88.3%	\$18.00	\$18.00	FSG	...	\$18.00
2	1406 Three Points Drive	1406 Three Points Dr.	Pflugerville	1980	B	15,720	7,269	53.8%	\$12.00	\$12.00	FSG	...	\$12.00
3	15300 FM 1825	15300 FM 1825	Pflugerville	1985	C	10,020	0	100.0%	...	...	MG	...	...
4	2415 W. Pecan Street	2415 W. Pecan St.	Pflugerville	2008	B	5,466	4,884	10.6%	\$15.00	\$15.00	NNN	\$6.00	\$21.00
5	Grand Avenue Office Park	821 Grand Avenue Pkwy.	Pflugerville	1978	B	2,492	1,000	59.9%	\$16.00	\$16.00	NNN	\$6.00	\$22.00
6	First State Bank Building	1620 Grand Avenue Pkwy.	Pflugerville	2009	B	11,500	6,655	42.1%	\$16.00	\$16.00	NNN	\$6.70	\$22.70
7	Heatherwilde Professional and Medical Center	305 N. Heatherwilde Blvd.	Pflugerville	2012	B	35,588	2,026	94.3%	\$15.70	\$15.70	NNN	\$5.50	\$21.20
8	Park Place	2401 Pecan St.	Pflugerville	1985	C	14,734	3,406	76.9%	\$12.00	\$12.00	FSG	...	\$12.00
Total/Average						107,120	26,593	75.2%	\$14.29			\$6.25	\$17.71

Source: Capital Market Research, April 2018

Note: Average Rental Rates are "Gross", including expenses.

rent_occals



Pflugerville Market Area Industrial Market Conditions

Overview

In May 2018, Capitol Market Research surveyed 10 multi-tenant industrial parks in the Pflugerville market area that together comprise a total of 2,349,904 sq. ft. of industrial space. Within these 10 parks there are 110 buildings, of which 32 are owner occupied, and 78 are leased. The 78 buildings available for lease comprise 1,740,783 square feet. Among the multi-tenant buildings there is 78,715 square feet available for lease.

Currently, the market area occupancy is 95.5%. Average rents are \$10.80 per sq. ft. (per year) on a “triple net” lease basis.

Occupancy & Absorption

Overall occupancy is very high among the multi-tenant industrial buildings in Pflugerville. Only four of the ten parks we surveyed had any vacancy. The other six parks in our inventory are 100% occupied. It is interesting to note, that 609,121 square feet, or 25.9% of the total space in the Pflugerville market area, is single-tenant owner occupied industrial space.

Average Rents

Newer and larger industrial buildings generally have higher rents than the small, older buildings. The only building for which rental rates were available was a new office/service center building at 16808 Calphy Drive, where the quoted rate is \$10.80 per square foot.

New Construction

Two of the larger industrial parks in the Pflugerville market area, 685 Commercial Park and Royston Lane, started construction in the mid-1980s, but have continued new construction and the addition of new square footage until recently. Most other of the industrial parks started construction in the early to mid-2000s. Several parks, including 130 Commerce Center, Royston Lane, and Wells Point Business Park delivered space in 2017.

The market outlook for new multi-tenant industrial development in Pflugerville appears to be quite strong. The current occupancy and rent levels indicate a strong local demand for industrial space, and the regional demand for industrial space is also strong. With easy access to Interstate 35 and State Highway 130 Toll, and a central location within the Austin region, the prospects for new Industrial development in Pflugerville are very favorable. As evidence supporting this conclusion, there is more than 500,000 square feet of industrial space currently under construction in the Pflugerville market area.

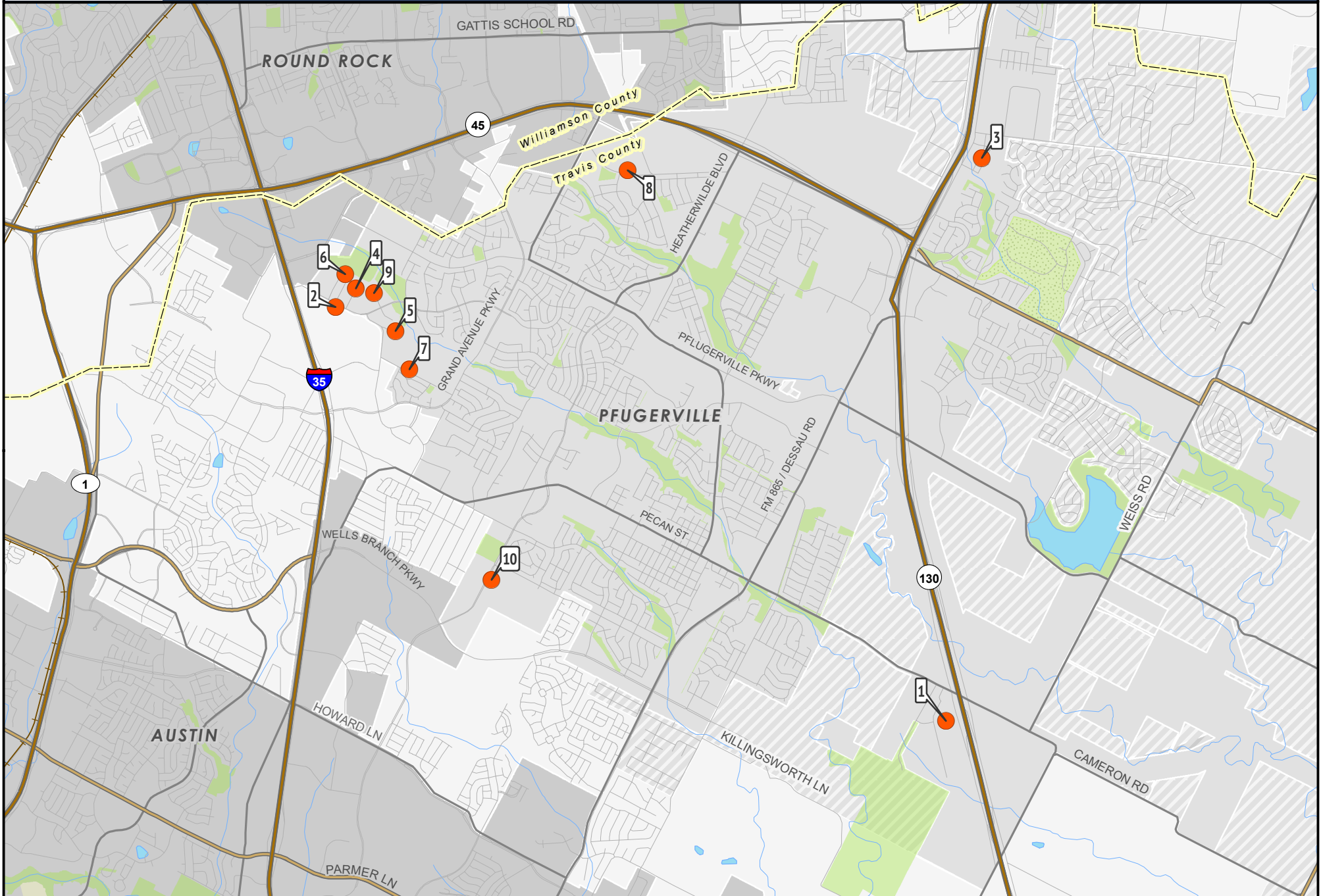
Table (24)
Industrial Inventory
Pflugerville Market Area

Map No.	Project	Address	City	YOC	Buildings	Owner Occupied	Renter Occupied	Total Area	Owner Occupied Area	Net Rentable Area (NRA)	Available Sq. Ft.	Occupancy
1	130Commerce Center	Helios Way	PFL	2013 - 2017	5	2	3	881,031	308,211	572,820	0	100.0%
2	2116/2124 Picadilly Drive	2116/ 2124 Picadilly Drive	RR	2010 - 2016	2	...	2	9,316	0	9,316	0	100.0%
3	685 Commercial Park	Algreg, Mashburn, Dalshank	PFL	1987 - 2013	30	11	19	155,373	51,992	103,381	10,875	89.5%
4	Calply Subdivision Industrial Park	Calply Drive	RR	2008 - 2016	7	...	7	107,148	0	107,148	31,560	70.5%
5	Metro Business Park	Central Commerce Ct	PFL	2009 - 2012	1	...	1	21,000	0	21,000	0	100.0%
6	Picadilly Business Park	Joe Barbee Drive	PFL	2014 - 2018	14	4	10	103,487	34,440	69,047	16,280	76.4%
7	Royston Lane	Royston Lane	RR	1986 - 2017	11	4	7	287,854	111,083	176,771	0	100.0%
8	Springbrook Corporate Center	New Meister Lane	PFL	2007	2	...	2	244,800	0	244,800	0	100.0%
9	Springbrook Ind/Business Park	Picadilly, Randolph Ct	PFL	2003 - 2016	34	11	23	375,828	103,395	272,433	20,000	92.7%
10	Wells Point Business Park	South Heatherwilde	PFL	2001 - 2017	4	...	4	164,067	0	164,067	0	100.0%
Total/Average					110	32	78	2,349,904	609,121	1,740,783	78,715	95.5%

Source: Capital Market Research, May 2018

Note: Properties with less than 10,000 square feet not included

Industrial_0518.xls



Pflugerville Market Area Retail Market Conditions

Overview

In April 2018, CMR surveyed 14 multi-tenant retail centers (or buildings) in the Pflugerville market area with a total of 2,306,365 square feet of rentable area. The market area contains a wide mix of shopping centers with small strip centers located along Pecan Street and Grande Avenue Parkway, two H-E-B anchored neighborhood centers on Wells Branch Parkway and Pecan Street, and community centers clustered along FM 685.

New Construction

The Pflugerville market area has seen a relatively slow growth in new retail development over the last two decades. Seven of the fourteen centers were completed before 2000. However, since 2000, new retail centers have been added slowly and steadily, with a new center every 3-4 years. The most recent additions were Pflugerville Town Center, completed in 2012, and Pecan Street Marketplace, completed in 2017. The largest retail center in the market area, and now one of the largest in the region, Stone Hill Town Center, was opened in 2009, and is still undergoing small phases of additional construction.

Occupancy & Absorption

The current (April 2018) occupancy in the Pflugerville market area is 98.3%, 1.1% points less than June 2017 (99.4%). Currently, there is approximately 38,191 square feet of available lease space among the 14 surveyed properties. Market area absorption for 2013 was (-5,315) square feet, down from 2012 when absorption was 28,201 square feet. In 2014 reached its highest rate of absorption at 370,365 square feet, when new anchors and shop space was added at Stone Hill Town Center. From 2015 through 2017, absorption decreased steadily but remained positive. Currently in the first half of 2018, there is a negative absorption of (-25,316) square feet.

Average Rents

Between 2005 and 2006 the average rental rate for the Pflugerville market area increased from \$21.71 in 2005 to \$22.51 in 2006, a 3.68% increase. The rate declined to \$17.00 in 2007, then rose in 2007 and again in 2008 to \$23.07. Average rent per square foot dropped in 2010 and then remained fairly steady through 2012, fluctuating only between \$20.41 and \$20.89. In 2013, average rent per square foot jumped to its highest rate of \$25.08. Then rates declined each year from 2014 to 2017, reaching a low of \$15.25 in 2017, which correlated with the market area's highest occupancy rate at 99.4%. In the first half of 2018, rates have jumped again and are currently at \$23.09 per square foot.

Market Outlook

The retail market in Pflugerville has experienced generally positive rates of absorption and growing occupancy rates. Since 2013, occupancy rates have increased from 82.8% to 98.3% in April 2018, a 15.5% point increase. In the same time frame, there has been very small amounts of new construction, with the largest being the 272,052 square feet of new space added at Stone Hill Town Center in 2014. High occupancy and little growth of space suggests the potential for continued successful expansion in the Pflugerville retail market.

Table (25)
Retail Market Summary
Pflugerville Market Area

Year	Rentable Sq.Ft.	Sq. Ft. Leased	Occupancy Rate	Sq.Ft. Additions	Sq. Ft. Absorption	Rent per Sq. Ft.
2005	786,611	700,581	89.1%	...	...	\$21.71
2006	835,242	743,955	89.1%	48,631	43,374	\$22.51
2007	1,087,528	1,013,756	93.2%	252,286	269,801	\$17.00
2008	1,358,782	1,131,929	83.3%	271,254	118,173	\$20.04
2009	1,858,682	1,477,749	79.5%	499,900	345,820	\$23.07
2010	1,985,182	1,678,956	84.6%	126,500	201,207	\$20.41
2011	1,995,028	1,638,368	82.1%	9,846	(40,588)	\$20.62
2012	2,006,593	1,666,569	83.1%	11,565	28,201	\$20.89
2013	2,006,593	1,661,254	82.8%	0	(5,315)	\$25.08
2014	2,278,645	2,031,619	89.2%	272,052	370,365	\$23.99
2015	2,278,645	2,209,050	96.9%	0	177,431	\$22.19
2016	2,278,645	2,258,452	99.1%	0	49,402	\$20.03
2017	2,306,635	2,293,490	99.4%	27,990	35,038	\$15.25
Apr-18	2,306,635	2,268,174	98.3%	0	(25,316)	\$23.09

Source: Capitol Market Research, Austin Area Retail Survey, December 2000 - April 2018

retail_sum_ls.xlsx

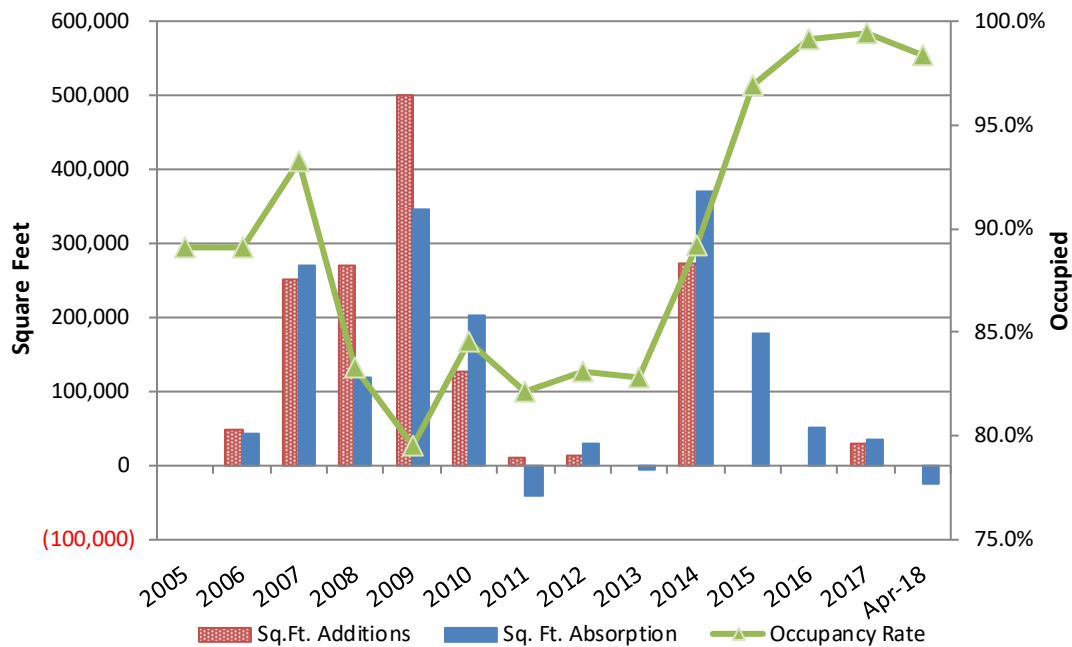


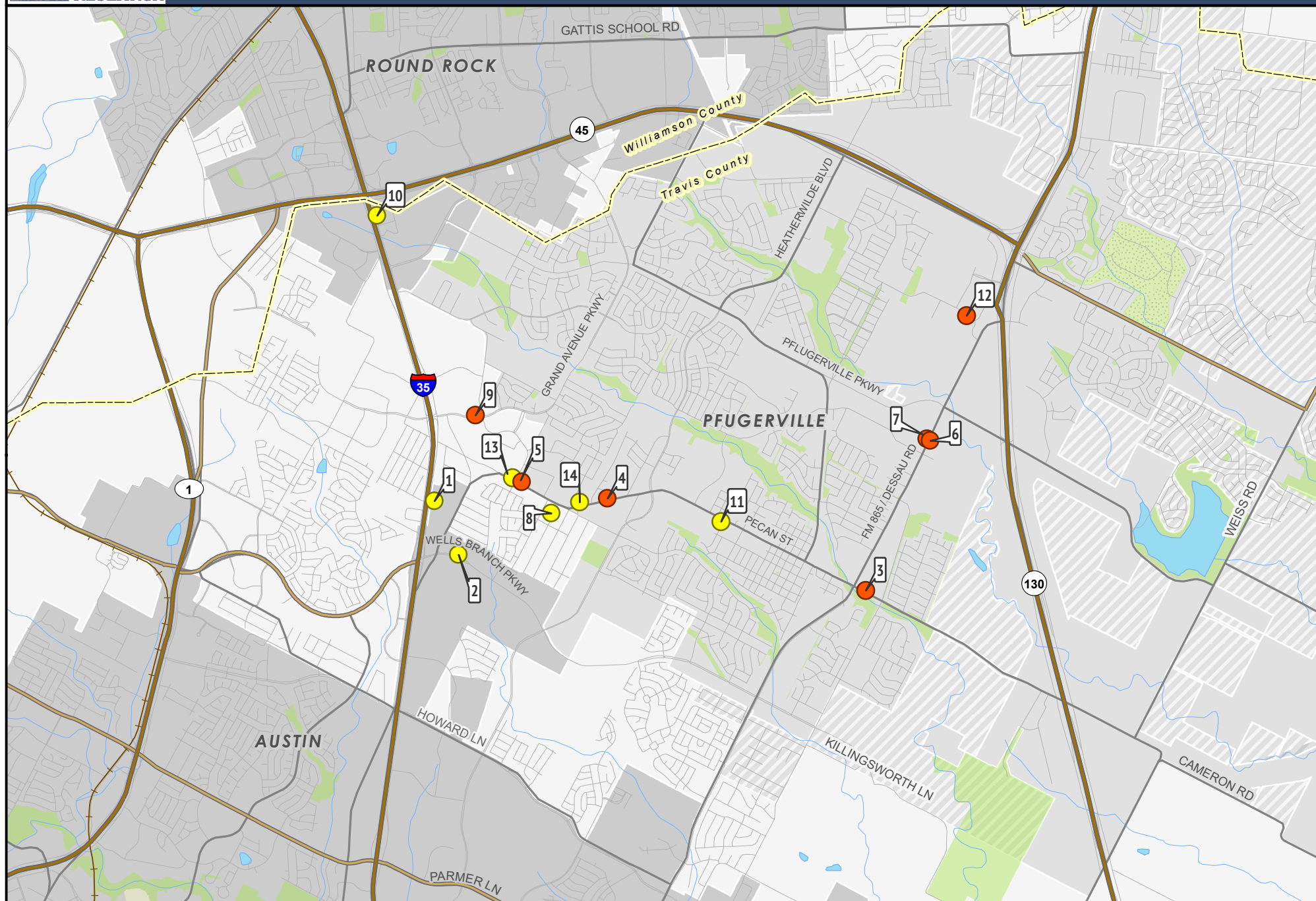
Table (26)
Retail Inventory
Pflugerville Market Area

Map No.	Project	Address	City	Type	YOC	Net Rentable Area (NRA)	Leased	Vacant	Occupancy	Low Rent (\$/sq. ft.)	High Rent (\$/sq. ft.)	NNN Expenses (Yearly)
1	Bella Norte	15301 N IH-35	Austin	Strip	1986	42,955	42,955	0	100.0%	...	...	...
2	Countryside Place	1420 W. Wells Branch Parkway	Austin	Neighborhood	1990	132,846	132,846	0	100.0%	...	...	...
3	HEB Pflugerville	900 E. Pecan Street	Pflugerville	Neighborhood	2003	96,565	96,565	0	100.0%	...	...	...
4	Pecan Plaza	1912 W. Pecan Street	Pflugerville	Strip	2003	20,720	20,720	0	100.0%	...	...	...
5	Pecan Street Marketplace	2606 W. Pecan Street	Pflugerville	Strip	2017	27,720	27,720	0	100.0%	...	...	...
6	Pflugerville Town Center	1553 FM 685 Road	Pflugerville	Community	2012	8,000	8,000	0	100.0%	...	...	...
7	Pfuger Crossing	1552 FM 685 Road	Pflugerville	Community	2007	403,000	403,000	0	100.0%	...	...	...
8	Pflugerville Plaza	15608 Spring Hill Lane	Pflugerville	Strip	1984	18,738	18,738	0	100.0%	...	...	...
9	Plaza at Grand Avenue	1700 Grand Avenue Parkway	Austin	Strip	2006	23,400	19,450	3,950	83.1%	\$22.00	\$28.00	\$10.00
10	Round Rock Crossing	3021 S IH-35	Round Rock	Community	1998	458,597	445,063	13,534	97.0%	\$32.00	\$32.00	\$9.11
11	Settler's Ridge Plaza	100 S. 12th Street	Pflugerville	Strip	1985	15,756	15,756	0	100.0%	...	...	...
12	Stone Hill Town Center	1517 Town Center Drive	Pflugerville	Community	2009	900,000	900,000	0	100.0%	...	...	...
13	Three Points Plaza	2700 W. Pecan Street	Austin	Neighborhood	1985	85,268	75,961	9,307	89.1%	\$16.00	\$20.00	\$5.00
14	Windermere Center	15803 Windermere Drive	Pflugerville	Strip	1986	72,800	61,400	11,400	84.3%	\$14.00	\$18.00	\$16.00
Total/Average						2,306,365	2,268,174	38,191	98.3%		\$23.09	

Source: Capital Market Research, April 2018

Note: 20,700 sq. ft. in Pecan Street Marketplace was completed in 2008, 7,020 sq. ft. completed in 2017. Added to database in 2017.

Inventory Detail.xls



**MARKET AREA FUTURE SUPPLY
& DEMAND**

Pflugerville Market Area Planned Multi-Family

Currently (April 2018), the overall occupancy rate in the Pflugerville market area is 86.5%, down 3.0% from December 2017 (89.5%). There are currently three properties in lease-up with a total of 617 rentable units, which is 14.8% of the available inventory. The large number of units in lease-up is causing higher than normal vacancy and downward pressure on rental rates.

Recent interviews with local brokers and apartment developers revealed nine “competitive” sites for multi-family construction. In order to be considered a “competitive” site, the identified site must either be held by or under contract to a developer with known intention to move forward with a multi-family project. In addition to the competitive sites, there are several sites that are “available” for purchase, for which there are currently no definitive plans for development. Sites are defined as being “available” if the land is currently zoned appropriately for multi-family development and utilities are available.

The annual additions to the market area resulting from the development of this potential inventory of competitive sites may vary based on the capacity of the apartment developer to obtain the necessary construction financing and city approvals. It is also possible that other projects not currently in the planning stage could be quickly developed and brought to the market. Thus, the list of planned additions is both actual, because it represents current plans, and representative, because it presents a position that the subject project will be competing with other new apartment projects during the anticipated development horizon.

Table (27)
Multi-Family Projects in Development
Pflugerville Market Area

Map No.	Project	Location	Planned Units	Developer	Current Status	Zoning
1	3301 Greenlawn	3301 Greenlawn	276	<i>tbd</i>	For Sale	PUD
2	Biltmore at the Park	130 Commerce Place	252	Tim Timmerman	Construction/Leasing	CL-5
3	Estraya Falcon Pointe	2132 Falcon Village Dr	324	Waypoint Residential	Construction/Leasing	CL-4
4	Hollybrook Ranch	2401 W Pflugerville Pkwy	335	Carroll Companies	Construction	MF-2
5	Legacy	1108 Legacy Drive	84	Americal Housing Ventures	Construction	SF-MU
6	Stone Hill at Pfluger Farms	NWC Pfluger Farms & Kingston Lacy	300	JCI Residential	Submitted	CL-4
7	The Crossing at Wells Branch	800 1/2 Wells Branch Pkwy.	210	Blackburn Group	Construction	MF-4
8	The Pecan District Ph.I	1809 Social Drive	272	Presidium Group	Approved	PUD
9	Walden Square	1301 E. Pfennig Ln	82	Lone Star Development	Construction	CL3
Total Units			2,135			

Source: Capital Market Research, Developer and Broker Interviews, April 2018
Note: (AH) = Affordable Housing

compsites.xls

Table (28)
Multi-Family Project Timing
Pflugerville Market Area

Map No.	Project Name	First Unit Completion	Planned Units	2018	2019	2020	2021	2022	Future
1	3301 Greenlawn	<i>tbd</i>	276	...	...	...	...	...	276
2	Biltmore at the Park	Apr-18	252	252	...	...	...	...	...
3	Estraya Falcon Pointe	Jan-18	324	324	...	...	...	...	...
4	Hollybrook Ranch	Jun-19	335	...	335	...	...	...	...
5	Legacy	Jun-18	84	84	...	...	...	...	...
6	Stone Hill at Pfluger Farms	Aug-19	300	...	220	80	...	...	...
7	The Crossing at Wells Branch	Jun-18	210	210	...	...	...	...	...
8	The Pecan District Ph.I	<i>tbd</i>	272	...	...	...	...	...	272
9	Walden Square	Jun-18	82	25	57	...	...	...	...
Total New Units			2,135	895	612	80	0	0	548

Source: Capitol Market Research, Developer and Broker Interviews, April 2018

compsites.xls

Note: (AH) = Affordable Housing

Pflugerville Market Area Multi-Family Demand

In order to determine the multi-family housing demand in the market area, CMR used the Population and Household Forecast, shown previously in Table (18), to estimate total multi-family unit demand. It is assumed that the renter housing tenure will continue to increase, based on the increase in renters as a percentage of total households, from the US 2000 Census through the 2010 Census. The percentage multi-family is calculated from new building permits issued over the past ten years in the MSA (Texas A&M Real Estate Data Center). Using these forecasts, an estimated new multi-family housing demand that averages 513 units per year from 2018 through 2027 is indicated, as shown in Table (29) below.

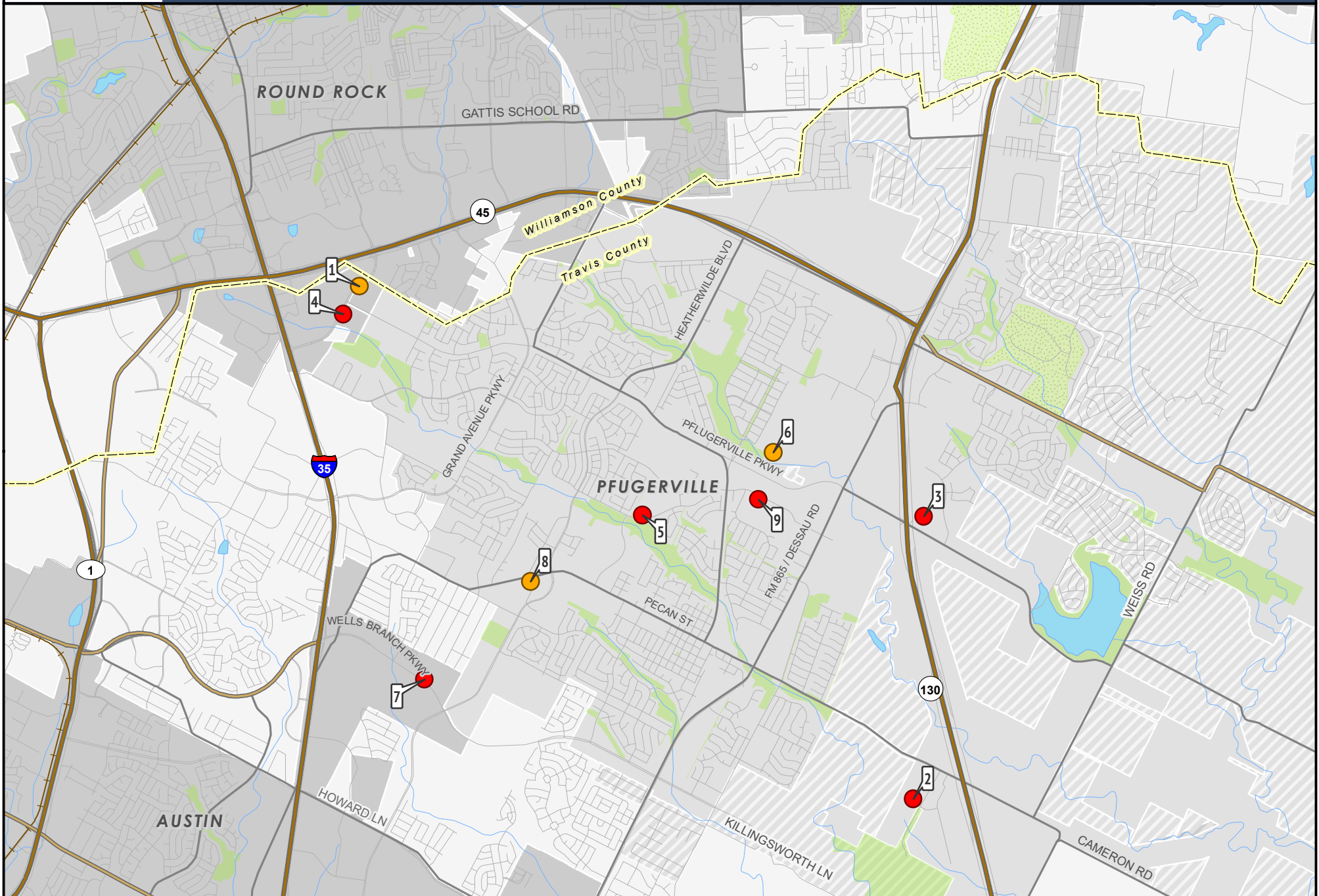
Table (29)
Multi-Family Unit Demand
Pflugerville Market Area

Year	Net HH Increase	MARKET AREA FORECAST			
		% Renter	New Renter HH	% Multi-Family	Multi-Family Demand
2018	1,553	28.44%	442	96.8%	428
2019	1,582	29.11%	460	96.8%	446
2020	1,613	29.77%	480	96.8%	465
2021	1,630	30.44%	496	96.8%	480
2022	1,664	31.10%	517	96.8%	501
2023	1,684	31.76%	535	96.8%	518
2024	1,722	32.43%	558	96.8%	541
2025	1,756	33.09%	581	96.8%	563
2026	1,781	33.75%	601	96.8%	582
2027	1,819	34.42%	626	96.8%	606

Prepared by: Capitol Market Research, April 2018

demcalc.xls

Notes: New Households based on Table (18). Percent renter based on general trend between 2000 and 2010 US Census. Percent multi-family based on new building permits issued in the area over the last 10 years as a percentage of all rental housing.



Pflugerville Market Area Multi-Family Absorption Forecast

The forecast for multi-family development in the City of Pflugerville, through 2027, is shown on Table (30) below. The forecast includes the planned additions to the market area inventory from Table (28) from 2018 through 2020, and then assumes that new units will be built to accommodate demand through 2027. The density of new development for 2018 through 2020 is based on site plans and acreage for the planned projects. From 2021 through 2027, the density of development is expected to increase.

Table (30)
Forecasted Multi-Family Occupancy
Pflugerville Market Area

Year	Number of Units	Units Occupied	Occupancy Rate	Units Added	Annual Absorption
2010	2,080	1,949	93.7%	0	83
2011	2,080	2,024	97.3%	0	75
2012	2,080	2,041	98.1%	0	17
2013	2,450	2,402	98.0%	370	361
2014	2,450	2,329	95.1%	0	(73)
2015	2,998	2,812	93.8%	548	483
2016	3,506	3,342	95.3%	508	530
2017	3,930	3,517	89.5%	424	175
2018	4,825	3,945	81.8%	895	428
2019	5,437	4,391	80.8%	612	446
2020	5,517	4,856	88.0%	80	465
2021	5,757	5,336	92.7%	240	480
2022	6,257	5,837	93.3%	500	501
2023	6,777	6,355	93.8%	520	518
2024	7,317	6,896	94.2%	540	541
2025	7,877	7,459	94.7%	560	563
2026	8,457	8,041	95.1%	580	582
2027	9,067	8,647	95.4%	610	606

Source: Capitol Market Research, May 2018

histocc_apl_pfl.xls

Note: Demand from Table (6), Supply through 2020 from Table (28). From 2021 -2027 supply is estimated to be roughly equivalent to demand in Table (29).

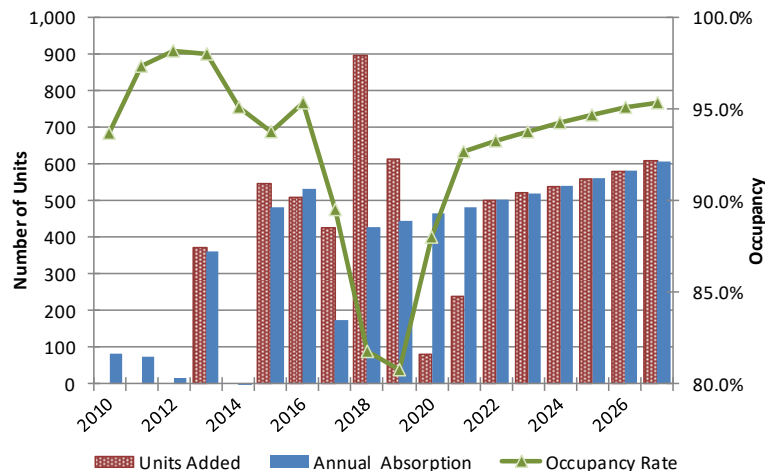


Table (31)
Multi-Family Absorption and Land Use
Pflugerville Market Area

Year	Pflugerville Market Area				
	Units Added	Estimated units/acre	Land Needed in Acres	Cumulative Land Required	Balance of Zoned Acreage
2018	895	16.3	55.0	55.0	819.0
2019	612	13.3	46.1	101.1	772.9
2020	80	15.0	5.3	106.4	767.6
2021	240	19.0	12.6	119.1	754.9
2022	500	19.0	26.3	145.4	728.6
2023	520	19.0	27.4	172.8	701.2
2024	540	19.0	28.4	201.2	672.8
2025	560	19.0	29.5	230.7	643.3
2026	580	19.0	30.5	261.2	612.8
2027	610	19.0	32.1	293.3	580.7
Total	5,137		293.3		

Source: Capitol Market Research, May 2018

histocc_apt.xls

Annual Demand is from Table (28), units added from Table (30). Density is based on site plans through 2020 and estimated at typical suburban density through 2027.

Balance of Zoned Acreage based on vacant land in which the zoning allows for multi-family use by right (CL5, MF-10, MF-20)

Pflugerville Market Area Planned Condominium Projects

In order to accurately forecast the absorption rate for condominium and townhome style units in the Pflugerville market area, it is necessary to identify tracts in the market area that are zoned for multi-family or condominium use that may be developed with condominiums within the forecast time period. Table (32) lists the projects whose location, size and development program indicate that they may be brought to market in the Pflugerville market area over the next several years. In order to be considered as “potential” competition, the proposed projects must either be held by, or under contract to, a developer with known intention to move forward with a condominium project. The proposed project timing in Table (34) combines the number of units planned for condominium development within the market area, and presents this information showing unit deliveries by year, to provide a complete picture of the potential additions to the market area.

Table (32)
Condominium Projects in Development
Pflugerville Market Area

Map No	Project Name	Location	Planned Units	Developer	Status
1	Sorento Condominiums	18114 Weiss Lane	119	DR Horton	Construction
2	Fort Dessau	Fort Dessau Rd	70	DR Horton	Planned
3	Falcon Pointe	Dillon Pond	72	Chesmar / CalAtlantic	Construction
Total Units			261		

Source: Capitol Market Research, May 2018

compsite_condo.xls

Table (33)
Condominium Project Timing
Pflugerville Market Area

Map No.	Project Name	Delivery Date	Planned Units	2018	2019	2020	2021	2022	Future
1	Sorento Condominiums	Jun-18	119	30	30	30	29	...	...
2	Fort Dessau	<i>tbd</i>	70	...	...	...	...	...	70
3	Falcon Pointe	Jun-17	72	36	...	...	...	...	...
Total Units Planned			261	66	30	30	29	0	70

Source: Capitol Market Research, May 2018

compsite_condo.xls

Note: If the annual supply exceeds demand, then the deficit is shown as a negative number.

Pflugerville Market Area Condominium Demand

In order to determine the attached housing demand in the market area, CMR used the Population and Household Forecast, shown previously in Table (18). It is assumed that the owner housing tenure will continued to slowly decline as a percentage of total households, based on the change seen between the 2000 and 2010 US Census numbers. The percentage of “attached housing” is based on MLS sales from 2014 through April 2018, of which 2.98% was “attached” housing. It is reasonable to assume that the trend toward increasing levels of higher density product development will continue throughout the forecast period, as this type of construction is growing in popularity and market share. CMR assumes that the percentage of “attached” housing will increase to 8.70% of the total in 2027. Using these forecasts, an estimated attached housing demand that averages 68 units per year from 2018 through 2027 is indicated, as shown in Table (34) below.

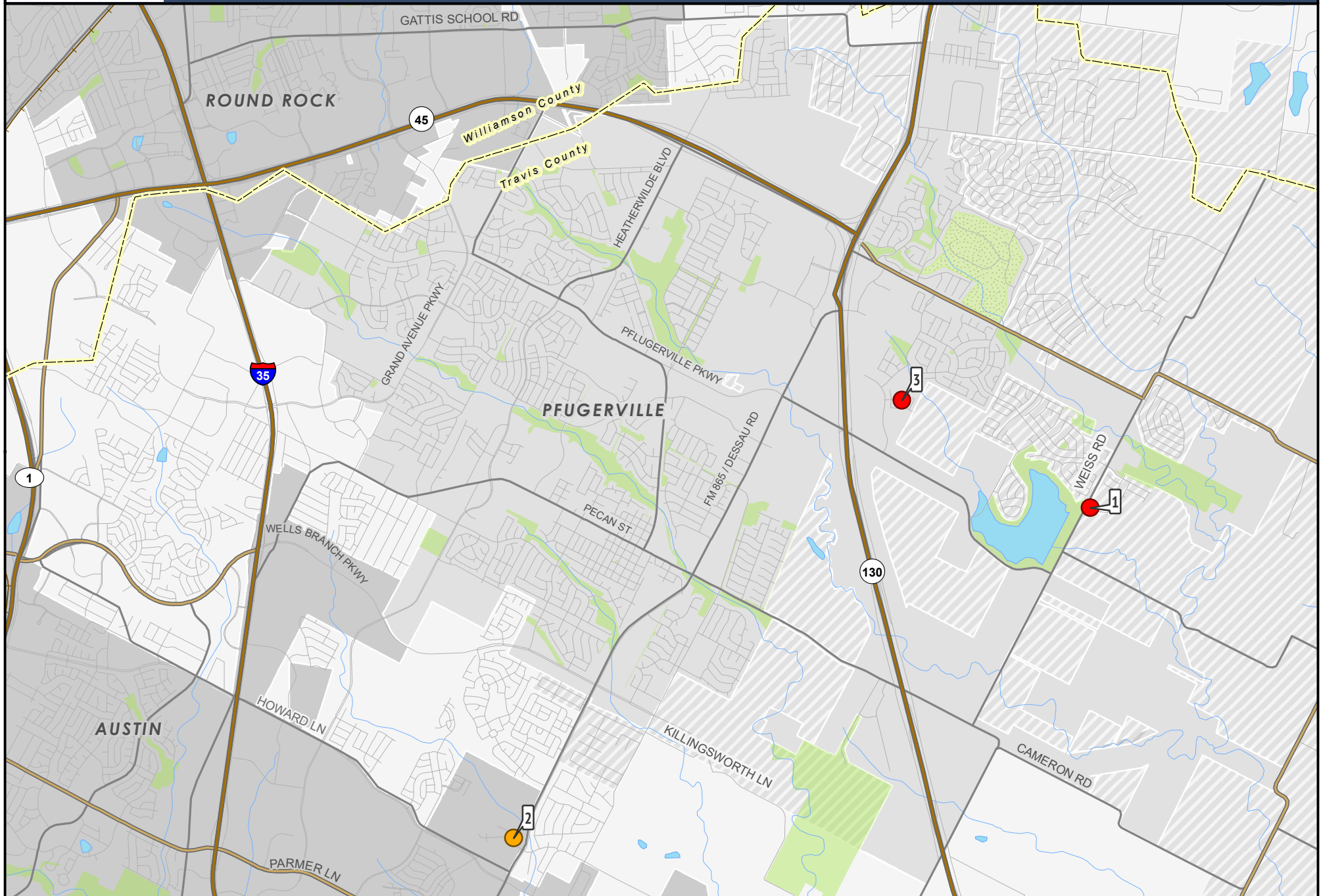
Table (34)
Condominium Demand
Pflugerville Market Area

Year	Net HH Increase	MARKET AREA FORECAST			
		% Owner	New Owner HH	% Attached	Condominium Demand
2018	1,553	71.56%	1,111	2.98%	33
2019	1,582	70.89%	1,121	3.62%	41
2020	1,613	70.23%	1,133	4.25%	48
2021	1,630	69.56%	1,134	4.89%	55
2022	1,664	68.90%	1,146	5.52%	63
2023	1,684	68.24%	1,149	6.16%	71
2024	1,722	67.57%	1,164	6.79%	79
2025	1,756	66.91%	1,175	7.43%	87
2026	1,781	66.25%	1,180	8.06%	95
2027	1,819	65.58%	1,193	8.70%	104

Prepared by: Capitol Market Research, April 2018

demcalc.xls

Notes: New Households based on Table (18). Percent owner based on general trend between 2000 - 2010 US Census. Percent attached based on recent trend of attached housing sales in the market area as a percentage of all MLS sales.



Pflugerville Market Area Attached Housing Absorption Forecast

The forecast for “attached” housing development in the Pflugerville market area, through 2027, is shown on Table (35) below. The forecast includes the planned additions to the market area inventory from Table (33) from 2018 through 2021, and then assumes that new units will be built to accommodate demand in Table (34) through 2027. The density of new development for 2018 through 2021 is based on site plans for the planned projects. From 2022 through 2027, the density of development is assumed to increase to 8.0 units per acre.

Table (35)
Condominium Absorption and Land Use
Pflugerville Market Area

Year	Pflugerville Market Area				
	Units Added	Estimated units/acre	Land Needed in Acres	Cumulative Land Required	Balance of Zoned Acreage
2018	66	6.2	10.7	10.7	2,051.6
2019	30	4.8	6.3	17.0	2,045.3
2020	30	4.8	6.3	23.3	2,039.0
2021	29	4.8	6.1	29.4	2,032.9
2022	63	8.0	7.9	37.2	2,025.1
2023	71	8.0	8.9	46.1	2,016.2
2024	79	8.0	9.9	56.0	2,006.3
2025	87	8.0	10.9	66.9	1,995.4
2026	95	8.0	11.9	78.7	1,983.6
2027	104	8.0	13.0	91.7	1,970.6
Total	654		91.7		

Source: Capitol Market Research, May 2018

compsite_condo.xls

Annual Demand is from Table (34). Planned unit additions from table (33) through 2021, then additions assumed to equal demand.

Balance of Zoned Acreage based on vacant land in which the zoning allows for attached housing use by right (2-F, CL4, CL5, MF-10, MF-20, SF-MU)

Pflugerville Market Area Planned Office Projects

In addition to the existing office buildings in the Pflugerville market area, there are also other sites planned for office development and new buildings currently under construction. The potential additions to the defined market resulting from the development of other planned office sites is based on the capacity of office developers to obtain the necessary construction financing and city approvals, often after a lengthy process where the developer has negotiated the land purchase with multiple ownership interests and spent many months working through the approval process. Currently, there are two buildings under construction and several competitive sites owned or controlled by office building developers, thus indicating the potential for competitive development within the proposed project development horizon. The list of competitive sites is shown on Table (36) below. The timing for the delivery of each building is provided on Table (37).

Table (36)
Multi-Tenant Office Buildings in Development
Pflugerville Market Area

Map No.	Name	Address	Developer Name	Size	Class	Status
1	Cornerstone at Kelly Lane	2100 Autumn Slate Dr.	Ironwood Real Estate	17,500	B	Construction
2	North Forest Office	701 E. FM 685	North Forest Office	53,100	B	Submitted
3	Pflugerville Pkwy Med. & Prof. Bldg. 1	1601 E. Pflugerville Pkwy	Ted Lain	15,125	B	Construction
4	Pflugerville Pkwy Med. & Prof. Bldg. 2	1601 E. Pflugerville Pkwy	Ted Lain	15,125	B	Planned
...	Pflugerville Pkwy Med. & Prof. Bldg. 3	1601 E. Pflugerville Pkwy	Ted Lain	15,125	B	Planned
...	Pflugerville Pkwy Med. & Prof. Bldg. 4	1601 E. Pflugerville Pkwy	Ted Lain	15,125	B	Planned
Total Square Feet				131,100		

Source: Capital Market Research, Developer Interviews, April 2018

compsite_off.xls

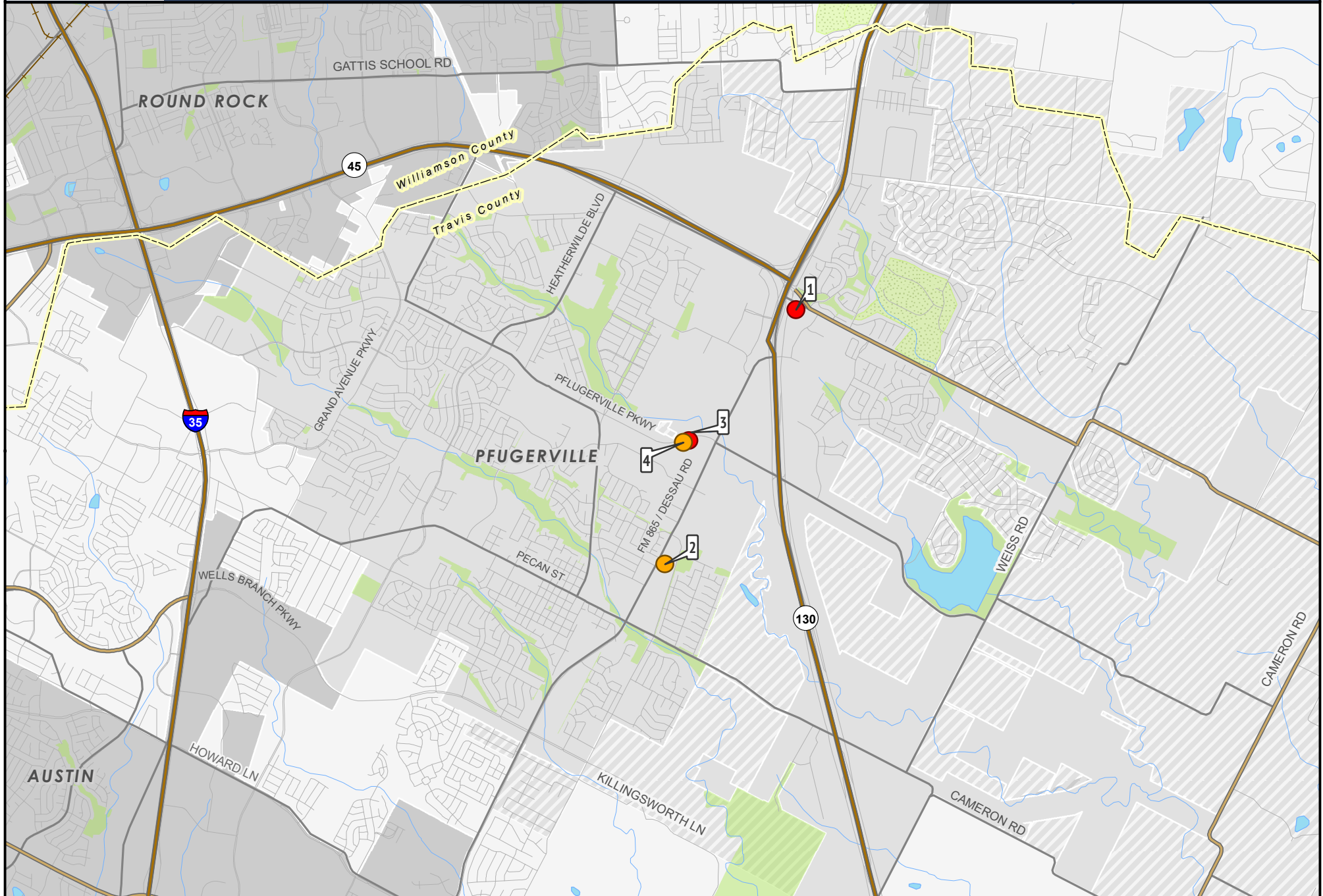
Table (37)
Office Project Timing
Pflugerville Market Area

Map No.	Name	Sq. Ft.	2018	2019	2020	2021	2022	2023	Future
1	Cornerstone at Kelly Lane	17,500	17,500	...	...	...	...	...	...
2	North Forest Office	53,100	...	53,100	...	...	...	...	...
3	Pflugerville Pkwy Med. & Prof. Bldg. 1	15,125	15,125	...	...	...	...	...	...
4	Pflugerville Pkwy Med. & Prof. Bldg. 2	15,125	...	15,125	...	...	...	...	...
...	Pflugerville Pkwy Med. & Prof. Bldg. 3	15,125	...	15,125	...	...	...	...	...
...	Pflugerville Pkwy Med. & Prof. Bldg. 4	15,125	...	...	15,125	...	...	...	...
Total Square Feet		131,100	32,625	83,350	15,125	0	0	0	0

Source: Capitol Market Research, Developer Interviews, April 2018

Note: Cornerstone at Kelly Lane has 10,000 sq. ft. preleased, Pflugerville Pkwy Med & Prof Bldg 1 fully preleased

compsite_off.xls



Pflugerville Market Area Office Demand

The Pflugerville market area multi-tenant office market is slowly emerging as the demand for professional and business services grow along with the population and household growth. Historically, this demand has been met primarily outside of the market area in office buildings in the Interstate 35 corridor, and in North Central Austin. According to the CMR market area delineations, Pflugerville falls within the larger North Central market area. This has been an active area which has grown from 1.6 million square feet in 2007 to 2.8 million square feet in 2017. As a percentage of total regional inventory, the North Central market area has increased from 4.6% to 5.7% of the regional (Austin MSA) inventory, while the Pflugerville market area's share of the North Central market area has increased from 3.3% in 2007 to 5.9% in 2012, but dropped to 3.8% in 2017 as large amounts of multi-tenant office space were built in other parts of the North Central market area.

Table (38)
Office Inventory Share
North Central Austin and Pflugerville

Date	MSA Inventory	North Central Inventory	North Central Market Share	Pflugerville Inventory	Pflugerville Market Share of N.Central
2007	35,630,721	1,631,735	4.6%	54,566	3.3%
2008	38,445,479	1,758,533	4.6%	60,032	3.4%
2009	39,677,836	1,842,847	4.6%	71,532	3.9%
2010	39,274,313	1,839,449	4.7%	71,532	3.9%
2011	39,358,387	1,816,464	4.6%	71,532	3.9%
2012	39,555,890	1,813,381	4.6%	107,120	5.9%
2013	39,156,400	1,813,381	4.6%	107,120	5.9%
2014	42,222,619	2,464,534	5.8%	107,120	4.3%
2015	44,004,567	2,609,887	5.9%	107,120	4.1%
2016	45,977,582	2,848,697	6.2%	107,120	3.8%
2017	50,068,367	2,848,697	5.7%	107,120	3.8%
Average			5.1%		4.2%

off_sum_1217.xls

Source: Capitol Market Research, Austin Area Historical Office Survey, December 2000 - December 2017

North Central & Pflugerville Market Area Office Absorption Forecast

As noted on the previous page, the North Central market area is increasing in its share of the regional inventory and now contains 5.7% of the regional multi-tenant office space. In addition, the absorption of office space has grown as a “share” of the MSA from 1.5% from 2003 to 2010, to 10.9% in the last seven years (2011 through 2017). Considering the amount of space planned and land available for development, it seems likely that absorption in the North Central market area will increase to a 15% market share in 2027.

Table (39)
Historical and Forecasted Office Absorption
North Central Market Area

Year	Citywide Absorption	North Central Market Area	
		Market Share	Absorption
2010	964,123	-7.3%	(70,116)
2011	1,361,946	1.8%	24,083
2012	1,072,575	-9.6%	(102,837)
2013	769,834	12.4%	95,697
2014	930,004	65.0%	604,285
2015	2,047,425	5.0%	101,836
2016	2,126,944	22.2%	472,702
2017	1,312,790	-11.4%	(150,026)
2018	1,794,945	10.9%	195,088
2019	1,439,718	11.1%	159,610
2020	997,632	11.3%	112,769
2021	851,363	11.5%	98,086
2022	1,488,634	11.7%	174,743
2023	1,239,910	12.0%	148,243
2024	1,247,942	12.2%	151,917
2025	1,193,699	12.4%	147,909
2026	1,126,745	12.6%	142,063
2027	1,130,071	15.0%	169,511

Source: Capitol Market Research, May 2018

emp_gro_2018.xls

Employment forecast from Table (1)

Citywide Absorption forecast based on employment growth
and office worker estimates

The Pflugerville market area is a submarket within the North Central market area. While historically, it has not been a strong submarket for office absorption, CMR believes that a 10% share (capture rate) of the forecasted North Central market area absorption is possible over the next ten years. In addition, there is 25,125 square feet preleased in two office projects (Cornerstone at Kelly Lake, Pflugerville Pkwy Medical & Professional Bldg. 1) and are both expected to deliver in 2018. Table (40) below shows this absorption rate forecast in conjunction with the planned inventory additions from Table (37), including the preleasing activity in 2018. This analysis shows an oversupply of office space through 2024, but opportunity for new office development beginning in 2025.

Table (40)
Office Absorption
Pflugerville Market Area

Date	North Central Absorption	Pflugerville Share of N.Central	Pflugerville Absorption	Planned Sq.Ft.	Additions minus Absorption	Cumulative Additions minus Absorption
2018	195,088	10.0%	44,634	32,625	12,009	12,009
2019	159,610	10.0%	15,961	83,350	(67,389)	(55,380)
2020	112,769	10.0%	11,277	15,125	(3,848)	(59,228)
2021	98,086	10.0%	9,809	0	9,809	(49,420)
2022	174,743	10.0%	17,474	0	17,474	(31,945)
2023	148,243	10.0%	14,824	0	14,824	(17,121)
2024	151,917	10.0%	15,192	0	15,192	(1,929)
2025	147,909	10.0%	14,791	0	14,791	12,861
2026	142,063	10.0%	14,206	0	14,206	27,068
2027	169,511	10.0%	16,951	0	16,951	44,019
Total	1,499,938		175,119	131,100	44,019	

Source: Capitol Market Research, Austin Area Office Survey, December 2000 - December 2017

emp_gro_2018.xls

North Central Absorption from Table (39), planned sq.ft. from Table (37). Pflugerville absorption in 2018 includes 25,125 sq.ft. of preleased space in under construction projects.

Table (41) below shows the office space added, by year, and the acreage consumed based on the Floor to Area Ratio (FAR) from site plans approved for projects expected to be delivered from 2018 through 2020. Additional land developed from 2021 through 2027 is assumed to be built at a typical suburban office FAR of 0.25. New, but unspecified, office development is assumed to occur beginning in 2025.

Table (41)
Office Space Added and Acres Developed
Pflugerville Market Area

Year	Pflugerville Market Area				
	Square Feet Added	Estimated FAR	Land Needed in Square Feet	Land Needed in Acres	Balance of Zoned Acreage
2018	32,625	0.24	136,429	3.1	2,397.0
2019	83,350	0.24	350,658	8.1	2,389.0
2020	15,125	0.23	66,429	1.5	2,387.4
2021	0	0.25	0.0	0.0	2,387.4
2022	0	0.25	0.0	0.0	2,387.4
2023	0	0.25	0.0	0.0	2,387.4
2024	0	0.25	0.0	0.0	2,387.4
2025	12,861	0.25	51,444	1.2	2,386.3
2026	14,206	0.25	56,824	1.3	2,385.0
2027	16,951	0.25	67,804	1.6	2,383.4
Total	175,118		729,588	16.7	

Source: Capitol Market Research, May 2018

compsite_pfl_off.xls

Office space added from Table (40). Density is based on site plans through 2020 and estimated at typical suburban density through 2027.

Balance of Zoned Acreage based on vacant land in which the zoning allows for office use by right (GB-1, GB-2, CL3, CL4, CL5, NS, O, R)

Pflugerville Market Area Planned Industrial Projects

In addition to the existing industrial projects in the Pflugerville market area, there are also other sites planned for development and new buildings currently under construction. The potential additions to the defined market resulting from the development of other planned industrial sites is based on the capacity of developers to obtain the necessary construction financing and city approvals, often after a lengthy process where the developer has negotiated the land purchase with multiple ownership interests and spent many months working through the approval process. Currently, there are six buildings under construction and one additional competitive site owned or controlled by a developer, thus indicating the potential for competitive development within the proposed project development horizon. The list of competitive sites is shown on Table (42) below. The timing for the delivery of each building is provided on Table (43).

Table (42)
Multi-Tenant Industrial Buildings in Development
Pflugerville Market Area

Map No.	Name	Address	Developer Name	Size	Status
1	Heatherwilde Flex Space	1020 S. Heatherwilde	Jack Trade Properties	44,000	Construction
2	Heatherwilde 45	Heatherwilde & SH 45	Live Oak	263,674	Submitted
3	Pfairways Office Park	2913 A.W. Grimes	David Edelman	49,950	Construction
4	Picadilly	16921 Joe Barbee Dr	David Edelman	19,620	Construction
5	TRI Business Park	1801 Central Commerce Ct.	TRI International	32,000	Construction
6	Wells Pointe	1011 S. Heatherwilde	Nelson Puett & Assoc.	33,600	Construction
7	Verde Springs Corporate Center	1105 New Meister Ln	Verde Corporate Realty	258,280	Construction
Total Square Feet				701,124	

Source: Capitol Market Research, Developer Interviews, May 2018

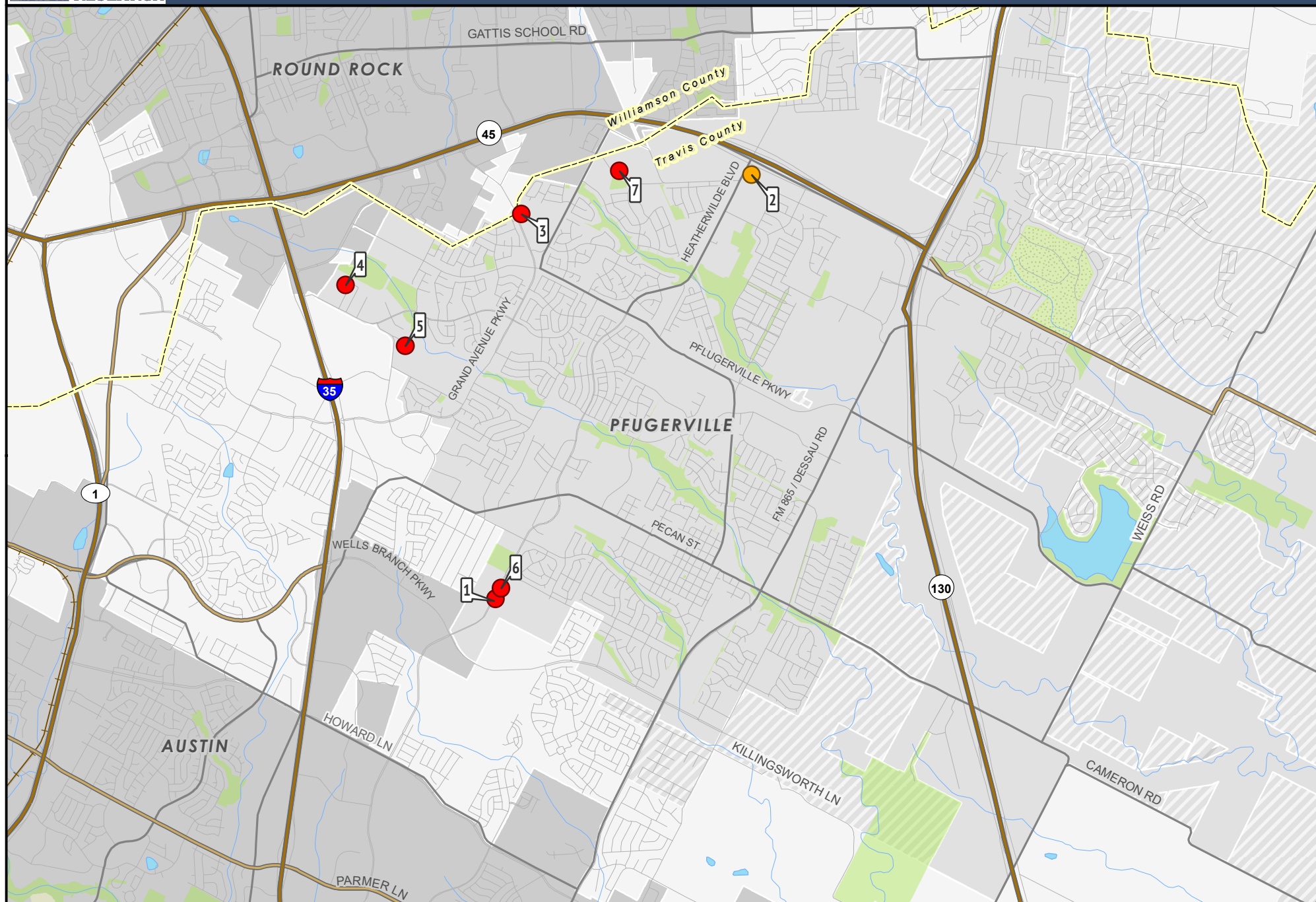
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Table (43)
Industrial Project Timing
Pflugerville Market Area

Map No.	Name	Sq.Ft.	2018	2019	2020	2021	2022	Future
1	Heatherwilde Flex Space	44,000	44,000	...	...	...	...	...
2	Heatherwilde 45	263,674	50,806	212,868	...	...	...	...
3	Pfairways Office Park	49,950	49,950	...	...	...	...	...
4	Picadilly	19,620	11,712	7,908	...	...	...	...
5	TRI Business Park	32,000	32,000	...	...	...	...	...
6	Wells Pointe	33,600	33,600	...	...	...	...	...
7	Verde Springs Corporate Center	258,280	258,280	...	...	...	...	...
Total Square Feet		701,124	480,348	220,776	0	0	0	0

Source: Capital Market Research, Developer Interviews, May 2018

Note: Pfairway Office Park is 100% preleased, TRI Business Park has 10,000 sq.ft. preleased



Pflugerville Market Area Industrial Demand

The Pflugerville market area multi-tenant industrial market is well established and growing at a rapid pace. Although this market area has an established industrial market, the historical trends are not well documented. Using a methodology established previously while calculated office demand, CMR looked at the larger Northeast Austin Industrial market area, according to REOC NAI Commercial Industrial Properties, of which the Pflugerville submarket falls within. This Northeast Austin market area has been an active area which has grown from 28.1 million square feet in 2007 to 39.8 million square feet in 2017. As a percentage of total regional inventory, the Northeast Austin market area has increased from 15.0% to 18.4% of the regional (Austin MSA) inventory, while the Pflugerville market area's share of the Northeast market area has increased at an astonishing rate, from 5.4% in 2000 to 24.4% in 2017.

Table (44)
Industrial Inventory Share
Northeast Austin and Pflugerville Market Area

Date	MSA Inventory	Northeast Inventory	Northeast Market Share	Pflugerville Inventory	Pflugerville Share of Northeast
2000	28,154,302	4,223,145	15.0%	228,127	5.4%
2001	31,196,339	5,303,378	17.0%	283,127	5.3%
2002	32,287,969	5,488,955	17.0%	283,127	5.2%
2003	32,294,889	5,490,131	17.0%	330,752	6.0%
2004	33,789,695	5,744,248	17.0%	377,292	6.6%
2005	33,796,412	5,745,390	17.0%	395,032	6.9%
2006	33,195,873	5,975,257	18.0%	430,922	7.2%
2007	34,477,566	6,339,701	18.4%	773,522	12.2%
2008	36,894,207	6,725,042	18.2%	864,152	12.8%
2009	37,824,305	6,725,042	17.8%	909,652	13.5%
2010	37,336,523	6,782,779	18.2%	930,260	13.7%
2011	37,252,898	6,793,854	18.2%	997,988	14.7%
2012	37,321,832	6,793,854	18.2%	997,988	14.7%
2013	37,408,302	6,793,974	18.2%	997,988	14.7%
2014	37,967,373	7,131,939	18.8%	1,513,392	21.2%
2015	38,027,991	6,982,335	18.4%	1,540,016	22.1%
2016	38,734,643	7,102,117	18.3%	1,761,236	24.8%
2017	39,862,834	7,353,723	18.4%	1,794,684	24.4%
Average			17.7%		12.2%

Source: NAI Historical Commercial Industrial Properties December 1991 - October 2017

ind_sum_0917

Compiled by Capitol Market Research, April 2018

Northeast Austin & Pflugerville Market Area Industrial Absorption Forecast

As noted on the previous page, the Northeast market area currently contrails 18.4% of the share of the regional inventory in multi-tenant industrial space. In addition, the absorption of industrial space, as a “share” of the MSA, averaged 19% over the last eight years (2010 through 2017). Considering the amount of space planned and the large amount of land available for development, it seems likely that absorption in the Northeast market area will increase to a 25% market share in 2027.

Table (45)
Historical and Forecasted Industrial Absorption
Northeast Austin

Year	Citywide Absorption	Northeast Market Area	
		Market Share	Absorption
Historical	2010	693,354	-17.1% (118,754)
	2011	1,100,158	16.9% 185,911
	2012	2,050,382	32.2% 659,430
	2013	1,069,148	18.8% 200,879
	2014	476,811	113.9% 543,042
	2015	1,458,958	-38.7% (564,041)
	2016	385,666	99.9% 385,132
	2017	444,181	37.8% 167,838
Forecast	2018	1,794,945	19.0% 341,155
	2019	1,439,718	19.3% 278,180
	2020	997,632	19.6% 195,908
	2021	851,363	20.0% 169,871
	2022	1,488,634	20.3% 301,720
	2023	1,239,910	20.6% 255,219
	2024	1,247,942	20.9% 260,809
	2025	1,193,699	21.2% 253,238
	2026	1,126,745	21.5% 242,589
	2027	1,130,071	25.0% 282,518

Source: Capitol Market Research, May 2018

emp_gro_2018.xls

Historical Absorption from "The Source: Industrial Building Market Update"

NAI Commercial Industrial Properties, Q4 2010 - Q3 2017

Citywide Absorption forecast based on employment growth
and office worker estimates

The Pflugerville market area is a submarket within the Northeast Austin Industrial market area. Over the last 10 years, it has increased inventory by 107.7% and increased as a percentage of the Northeast market area from 12.8% to 23.8%. CMR believes that a 35.9% share (capture rate) of the forecasted Northeast market area absorption is possible over the next ten years. . In addition, there is 59,950 square feet in two industrial projects (Pfairways Office Park, TRI Business PArk) that are both expected to deliver in 2018. Table (46) below shows this absorption rate forecast in conjunction with the planned inventory additions from Table (43), and the preleasing activity in 2018, with planned additions outpacing demand until 2025.

Table (46)
Industrial Absorption
Pflugerville Market Area

Date	Northeast Absorption	Pflugerville Share of N.Central	Pflugerville Absorption	Pflugerville Additions to Inventory	Additions minus Absorption	Cumulative Additions minus Absorption
2018	341,155	24.0%	141,827	480,348	(338,521)	(338,521)
2019	278,180	26.6%	73,996	220,776	(146,780)	(485,301)
2020	195,908	29.2%	57,205	0	57,205	(428,096)
2021	169,871	31.8%	54,019	0	54,019	(374,077)
2022	301,720	34.4%	103,792	0	103,792	(270,285)
2023	255,219	37.0%	94,431	0	94,431	(175,854)
2024	260,809	39.6%	103,280	0	103,280	(72,574)
2025	253,238	42.2%	106,866	0	106,866	34,293
2026	242,589	44.8%	108,680	0	108,680	142,972
2027	282,518	50.0%	141,259	0	141,259	284,231
Total	2,581,206	38.2%	985,355	701,124	284,231	

Source: Capital Market Research, May 2018

emp_gro_2018.xls

Northeast Absorption from Table (45), planned sq.ft. from Table (43) . Pflugerville absorption in 2018 includes 59,950 sq.ft. of preleased space in under construction projects.

Table (47) below shows the industrial space added, by year, and the acreage consumed based on the Floor to Area Ratio (FAR) assumed to be built at a typical suburban commercial development FAR of 0.25.

Table (47)
Industrial Space Added and Acres Developed
Pflugerville Market Area

Year	Pflugerville Market Area				
	Square Feet Added	Estimated FAR	Land Needed in Square Feet	Land Needed in Acres	Balance of Zoned Acreage
2018	480,348	0.25	1,921,392	44.1	95.7
2019	220,776	0.25	883,104	20.3	75.4
2020	0	0.25	0	0.0	75.4
2021	0	0.25	0	0.0	75.4
2022	0	0.25	0	0.0	75.4
2023	0	0.25	0	0.0	75.4
2024	0	0.25	0	0.0	75.4
2025	34,293	0.25	137,172	3.1	72.3
2026	108,680	0.25	434,720	10.0	62.3
2027	141,256	0.25	565,024	13.0	49.3
Total	985,353		3,941,412	90.5	

Source: Capitol Market Research, May 2018

compsite_pfl_ind.xls

Industrial space added from Table (43). Density is based on a typical suburban industrial density through 2027.

Balance of Zoned Acreage based on vacant land in which the zoning allows for industrial use by right (CI, LI, and GI)

Pflugerville Market Area Planned Retail Projects

In addition to the existing retail projects in the Pflugerville market area, there are also other sites planned for development or for sale. The potential additions to the defined market resulting from the development of other planned retail sites is based on the capacity of developers to obtain the necessary construction financing and city approvals, often after a lengthy process where the developer has negotiated the land purchase with multiple ownership interests and spent many months working through the approval process. Currently, there are no retail projects under construction, although two in the Stone Hill Town Center are expected to start soon, along with one other planned site and two with appropriate zoning that are for sale, thus indicating the potential for competitive development. The list of competitive sites is shown on Table (48) below. The timing for the delivery of each building is provided on Table (49).

Table (48)
Retail Projects in Development
Pflugerville Market Area

Map No	Name	Address	Developer	Size	Anchor	Status
1	Picadilly Retail Center	428 Grand Avenue	<i>tbd</i>	10,000	...	For Sale
2	Pflugerville Retail Center	1300 Pflugerville Pkwy	Astono Real Estate Partners	12,700	...	Submitted
3	Plaza on Heatherwilde	18801 N. Heatherwilde	SRS Real Estate Partners	10,400	...	For Sale
4	Stone Hill Town Center Retail 12B	Limestone Commercial	New Quest	8,000	...	Approved
5	Stone Hill Town Center Tract 22	18817 Limestone Commercial	New Quest	12,500	Torchy's Tacos	Approved
Total Square Feet				53,600		

Source: Capitol Market Research, Developer Interviews, April 2018

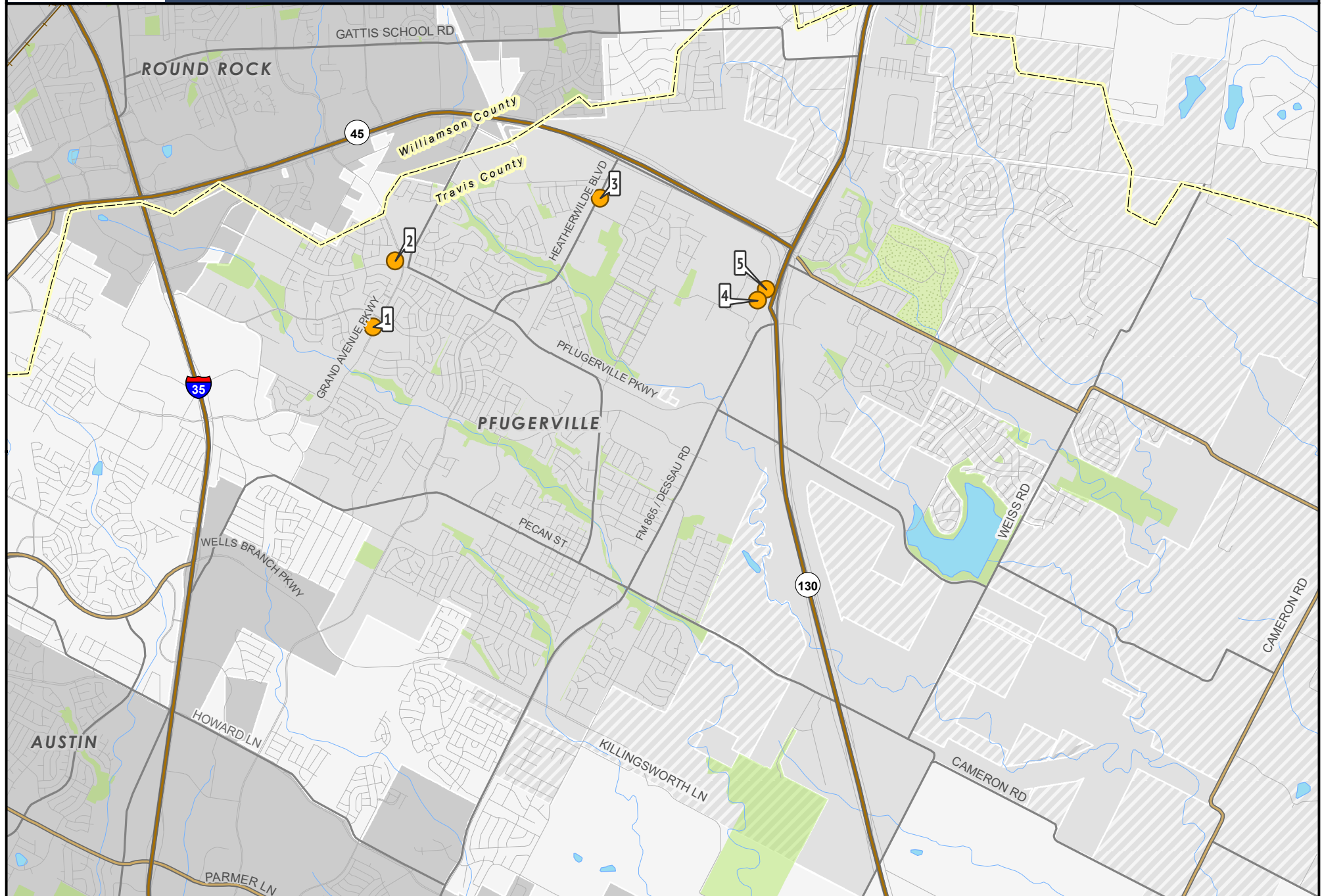
compsite_retail.xls

Table (49)
Retail Project Timing
Pflugerville Market Area

Map No.	Name	Size	2018	2019	2020	2021	2022	2023	2024	Future
1	Picadilly Retail Center	10,000	...	...	...	...	...	...	...	10,000
2	Pflugerville Retail Center	12,700	...	12,700	...	...	...	...	...	...
3	Plaza on Heatherwilde	10,400	...	...	...	...	...	...	...	10,400
4	Stone Hill Town Center Retail 12B	8,000	8,000	...	...	...	...	...	...	...
5	Stone Hill Town Center Tract 22	12,500	12,500	...	...	...	...	...	...	...
Total Square Feet		53,600	20,500	12,700	0	0	0	0	0	20,400

Source: Capitol Market Research, Developer Interviews, April 2018

compsite_retail.xls



Pflugerville Market Area Retail Demand

The demand for retail **space** is a function of the demand for retail goods and services, and growth in this demand is fundamentally based upon population increase and growth in disposable income. Thus, the two most important demographic components of demand are population growth and changes in the income of the market area households. Population growth for the market area was taken from Table (18), and average household income increase was based on the market area median household income change (Table (16)). Disposable income and annual expenditures were taken from the Bureau of Labor and Statistics (BLS) 2016 Consumer Expenditure survey. Gross sales per square feet were based on the change in sales reported in the 2002 and 2008 publications of the ISCS's Retail Survey. It is estimated that the market area will show an average annual demand for 151,274 square feet of retail space per year, from 2018 through 2027.

Table (50)
Retail Space Demand
Pflugerville Market Area

Year	New Households	Average HH Income	New Household Disposable Income	New Consumer Expenditures	Gross Sales per Sq.Ft.	Retail Space Demand (Sq.Ft.)
2018	1,553	\$83,281	\$111,154,219	\$45,451,992	\$268	169,813
2019	1,582	\$83,973	\$114,179,195	\$46,688,933	\$284	164,451
2020	1,613	\$84,665	\$117,377,222	\$47,996,636	\$300	159,904
2021	1,630	\$85,357	\$119,599,479	\$48,905,337	\$316	154,564
2022	1,664	\$86,048	\$123,066,893	\$50,323,195	\$333	151,276
2023	1,684	\$86,740	\$125,567,217	\$51,345,601	\$349	147,161
2024	1,722	\$87,432	\$129,403,823	\$52,914,425	\$365	144,909
2025	1,756	\$88,124	\$133,006,375	\$54,387,542	\$381	142,597
2026	1,781	\$88,816	\$135,966,186	\$55,597,836	\$398	139,814
2027	1,819	\$89,507	\$139,942,699	\$57,223,869	\$414	138,253

Capitol Market Research, April 2018

retail_demand.xls

Notes: Household estimate based on market area increasing capture rate of Austin MSA growth,
Average HH income increase based on market area 1999 ACS and 2012-2016 ACS 5-Year estimates.
Disposable income (86.0%) and Annual Expenditures, excluding than Housing, Transportation, Healthcare,
& Education (40.9%), based on 2016 BLS Consumer Expenditure Survey.
Gross Retail Sales per Sq.Ft. based on the ULI & ISCS "Dollars & Cents of Shopping Centers" (2002 - 2008)
Median by Retail Type & market area totals (April 2018).

Table (51) below shows the retail space added, by year, and the acreage consumed based on the Floor to Area Ratio (FAR) estimated at a typical suburban commercial development FAR of 0.25.

Table (51)
Retail Space Added and Acres Developed
Pflugerville Market Area

Year	Pflugerville Market Area				
	Square Feet Added	Estimated FAR	Land Needed in Square Feet	Land Needed in Acres	Balance of Zoned Acreage
2018	20,500	0.25	82,000	1.9	2,384.8
2019	12,700	0.25	50,800	1.2	2,383.6
2020	0	0.25	0	0.0	2,383.6
2021	154,564	0.25	618,256	14.2	2,369.5
2022	151,276	0.25	605,104	13.9	2,355.6
2023	147,161	0.25	588,644	13.5	2,342.0
2024	144,909	0.25	579,636	13.3	2,328.7
2025	142,597	0.25	570,388	13.1	2,315.6
2026	139,814	0.25	559,256	12.8	2,302.8
2027	138,253	0.25	553,012	12.7	2,290.1
Total	1,051,774		4,207,096	96.6	

Source: Capitol Market Research, May 2018

compsite_pfl_off.xls

Retail space added from Table (49) through 2020, square feet added from 2021 through 2027 estimated to match demand on Table (50). Density is based on site plans through 2019 and estimated at typical suburban industrial density through 2027.

Balance of Zoned Acreage based on vacant land in which the zoning allows for retail use by right (CI, CL3, CL4, CL5, GB1, GB2, NS, O, R)

SUMMARY AND CONCLUSIONS

Pflugerville Market Area Summary and Conclusions

Current Conditions

The market conditions for new construction in the Austin metropolitan area continue to be very strong. Job growth is robust and, because the unemployment rate is currently lower than other cities in Texas and in the nation at 3.0% (BLS, March 2018) new employees and their families continue to move into the region to fill the current job vacancies or look for work. While a surge in new construction in 2007 and 2008, combined with the recession in 2009, caused occupancy to fall in both the apartment and office markets, the past several years have seen a strengthening in the Austin market and an increase in demand for all types of housing, multi-tenant office space, industrial/flex space, and retail space.

Pflugerville has historically been a smaller suburban town, nestled between Austin and Round Rock. Over the last 14 years Pflugerville, and the surrounding market area, has been experiencing a rapid transition into a major suburban residential community within the Austin-Round Rock MSA. The growing population is drawn to the area because of the affordability of housing, proximity to employment opportunities, good schools, and a family friendly atmosphere. Recently, the area has experienced an accelerated level of population and housing growth.

The Pflugerville market area currently has 15 active apartment communities and is dominated by the suburban, garden style three-story walk up apartment community. In April 2018, the market area was currently 86.5% occupied, with three new properties currently in lease-up. The “stabilized” occupancy, excluding these three properties, is 92.7%. The current average rental rate of \$1.20 per square foot, fell slightly from \$1.22 in December 2017, due to concessions at several properties. There are currently six new apartment communities in the market area under construction, including two that started delivering units at the end of 2017. Two of those under construction properties are “single-family” rentals, which are detached and townhome style units in a single family subdivision configuration. There are currently three additional planned apartment communities.

The higher density for sale residential product in the Pflugerville market area has recently emerged, although new townhome and condominium sales still make up only a small fraction of the total single family homes sales. In April 2018, there were three projects under construction and selling existing inventory or “pre-selling” units at an average price of \$168,108, or \$129 per square foot. The MLS sales in the market area, which include resale activity, showed annual sales of “attached” housing continuing to increase, with sales prices rising to reach \$213,218 in April 2018. The higher density attached housing product in this market area is mostly townhome or detached single family condominium units.

The Pflugerville multi-tenant office market, according to a survey conducted by CMR in April 2018, is still relatively small, with only 107,120 square feet in eight buildings. The market area is currently 75.2% occupied with gross average rental rates of \$17.71 per square foot, for primarily one story, “stick” construction with surface parking. Only one building, the Heatherwilde Professional and

Medical Center, has been built since 2010. It should be noted that there are also several office condominium projects in the area, as the opportunity to buy small office space is more appealing to some small business owners. Currently there are two new office buildings under construction, both of which will deliver in 2018, and have experienced a substantial amount of pre-leasing. There are an additional four multi-tenant office buildings planned, three of which are additional buildings in a currently under construction project.

Multi-tenant industrial parks in the Pflugerville market area are currently the most prevalent type of commercial development in the area, with over 2.3 million square feet of space. The ten industrial parks with 110 buildings in the market area are currently 95.5% occupied. Two of the larger industrial parks in the Pflugerville market area, started construction in the mid-1980s and have continued new construction and the addition of new square footage over the intervening years. Most of the other industrial parks started construction in the early to mid-2000s. Several parks, including 130 Commerce Center, Royston Lane, and Wells Point Business Park delivered space in 2017. There are currently six additional industrial parks under construction and one planned, which together will deliver 480,348 square feet of space in 2018 and 220,776 square feet in 2019. Two of these projects, Pfairways Office Park and TRI Business Park, have a total of 59,950 square feet of space preleased.

The multi-tenant retail market in the Pflugerville market area is made up of 14 shopping centers with over 2.3 million square feet of space. There is a large mix of property types, including small strip centers along Pecan Street and Grande Avenue Parkway, two H-E-B anchored centers, and several larger community centers along Interstate 35 and State Highway 130 Toll. Since 2000, retail construction has continued to remain steady, with Stone Hill Town Center (900,000 sq.ft.) added in 2009, and several smaller centers in more recent years. According to an April 2018 survey conducted by CMR, the retail market is currently 98.3% occupied, with average rental rates at \$23.09 per square foot. There are currently no retail centers under construction, although there are two additions to Stone Hill Town Center planned to start soon, and three other sites in development.

Future Conditions

The high volume of population and employment growth in the Pflugerville market area resulted in a capture rate of 7.34% of the population growth in the MSA, according to the US 2000 Census and the most recent American Community Survey 5-year forecast (2012—2016). CMR anticipates that the market area share of MSA population growth will maintain this level of share through 2027, generating an average of 1,697 new households per year over this 10-year period. The tenure split in the market area is mostly owners (77.8% in 2014), like the majority of suburban cities in the Austin MSA, although the number of renter households (as a percentage of total) is slowly increasing as new apartments are delivered and new tenants move into the area.

The apartment market in the Pflugerville the market area has experienced substantial growth since 2010, with six new properties open and six currently under construction. The demand for all types of rental product, including traditional walk up style flats, townhomes, and now “single family” style rentals is expected to continue to increase as affordable housing becomes increasingly more difficult to find in the Austin area. As new employers create jobs in Pflugerville and the surrounding market area, CMR has estimated that the Pflugerville market area will have an average multi-family unit demand of 513 units per year, from 2018 through 2027. Although occupancy is expected to dip in 2018, as over 895 units are delivered, the following years should see an increase in occupancy as demand catches up to supply. The 5,137 units expected in the Pflugerville market area over the next ten years should bring an estimated additional value of over \$901 million to the area.

Attached housing (townhomes and condominiums) for sale in the Pflugerville market area still make up a small fraction of the overall single family homes sales in the area. The widespread availability of affordable single family homes has inhibited the growth of this product type, unlike other areas closer to Austin, that have seen an increase in the development of higher density for sale products. The forecast for “attached housing” in the market area remains low, and CMR has estimated an average of only 68 units per year for the next ten years. With 654 units of condominium and townhome units delivered from 2018 through 2027, the market area should see an increase of \$142 million in property value.

The Pflugerville market area has a very small office market, although new demand is evident in the two buildings currently under construction and their preleasing activity. Demand for multi-tenant office space in the market area is projected to remain low over the next ten years, averaging only 17,152 square feet per year, with an expected addition of \$45 million of value to the market area. Although multi-tenant office space demand is expected to remain low, the completion of the Baylor Scott & White Medical Center in mid-2018 could spur specialty MOB (medical office building) development, and small “for-sale” office condominiums are expected to remain popular.

By far the most prevalent type of commercial development in the Pflugerville market area, is multi-tenant industrial warehouse and flex space. This trend will continue, with 437,450 square feet currently under construction. Several currently under construction industrial parks have experienced

positive pre-leasing activity, and several other “built-to-suit” buildings like those for Living Spaces, MW Builders, and Accent Foods are under construction. The demand for multi-tenant industrial space is estimated by CMR to average 98,536 square feet for the next ten years, but with 701,124 square feet under construction and planned (even with strong preleasing), supply is expected to outpace deliveries until 2025. The square footage expected to be delivered in the Pflugerville market area will add an additional \$90 million of value from 2018 through 2027.

The retail market in the Pflugerville market area has gained strength since 2000, with half of the centers being built after this time, although there has only been only two small centers added since 2010. The current high occupancy rate (98.3%) and extensive population growth will result in continued demand for retail space. Using the forecasted household and income growth for the market area, CMR has estimated an average annual demand of 151,274 square feet per year. This demand will likely be met with a variety of product types, from smaller strip centers close to growing subdivisions, and larger neighborhood and community serving retail along major corridors such as State Highway 130 toll. This forecasted demand is projected to increase the market area property value by \$236 million from 2018 through 2027.

The forecasts described above are summarized in Table (52) and (53) on the following pages. Altogether, the anticipated development in the Pflugerville market area will add \$1.42 billion in property value over the next ten years.

In the aggregate, there is an abundant inventory of vacant, appropriately zoned land in Pflugerville to accommodate the higher density residential and commercial development planned and anticipated over the next ten years. It should be noted, however, that the majority of this currently vacant land is in “corridor districts”, especially in CL4 (Urban Level District 4) and CL5 (Urban Center Level District 5) along the State Highway 130 Toll corridor. These “corridor districts” allow for a variety of uses, but are intended specifically to facilitate mixed-use developments. The uses allowed in these districts (multi-family, attached housing, office, and retail) are intended to be built in conjunction with other complementary land uses that will create a vibrant walkable neighborhoods and communities.

Based on the CMR forecast for industrial space demand, there is insufficient vacant land zoned for industrial use, which will cause a significant hindrance to the employment growth potential for the city in both the short and long term. The industrial building market in Pflugerville is currently the strongest segment of the local economy, with over 2.3 million square feet of existing space and 701,124 square feet under construction and planned, and an appropriate amount of vacant land should be rezoned to accommodate this market demand.

Table (52)
Residential Land Use & Value Summary
Pflugerville Market Area

Year	Multi-Family			Condo/Townhome		
	Units Added/Demand	Land Needed In Acres	Multi-Family Value	Units Added/Demand	Land Needed In Acres	Condo Value
2018	895	55.0	\$157,126,898	66	10.7	\$14,379,217
2019	612	46.1	\$107,443,197	30	6.3	\$6,536,008
2020	80	5.3	\$14,044,862	30	6.3	\$6,536,008
2021	240	12.6	\$42,175,345	29	6.1	\$6,318,141
2022	500	26.3	\$87,780,390	63	7.9	\$13,725,616
2023	520	27.4	\$91,291,606	71	8.9	\$15,468,551
2024	540	28.4	\$94,802,821	79	9.9	\$17,211,487
2025	560	29.5	\$98,314,037	87	10.9	\$18,954,422
2026	580	30.5	\$101,825,252	95	11.9	\$20,697,357
2027	610	32.1	\$107,092,076	104	13.0	\$22,658,160
	5,137	293.3	\$901,896,485	654	91.7	\$142,484,966

Capitol Market Research, May 2018

Land Use and Value Summary.xls

Note: Values estimated using RS Means data from Gorlan. Average square footage estimated using existing inventory.

Table (53)
Commercial Land Use & Value Summary
Pflugerville Market Area

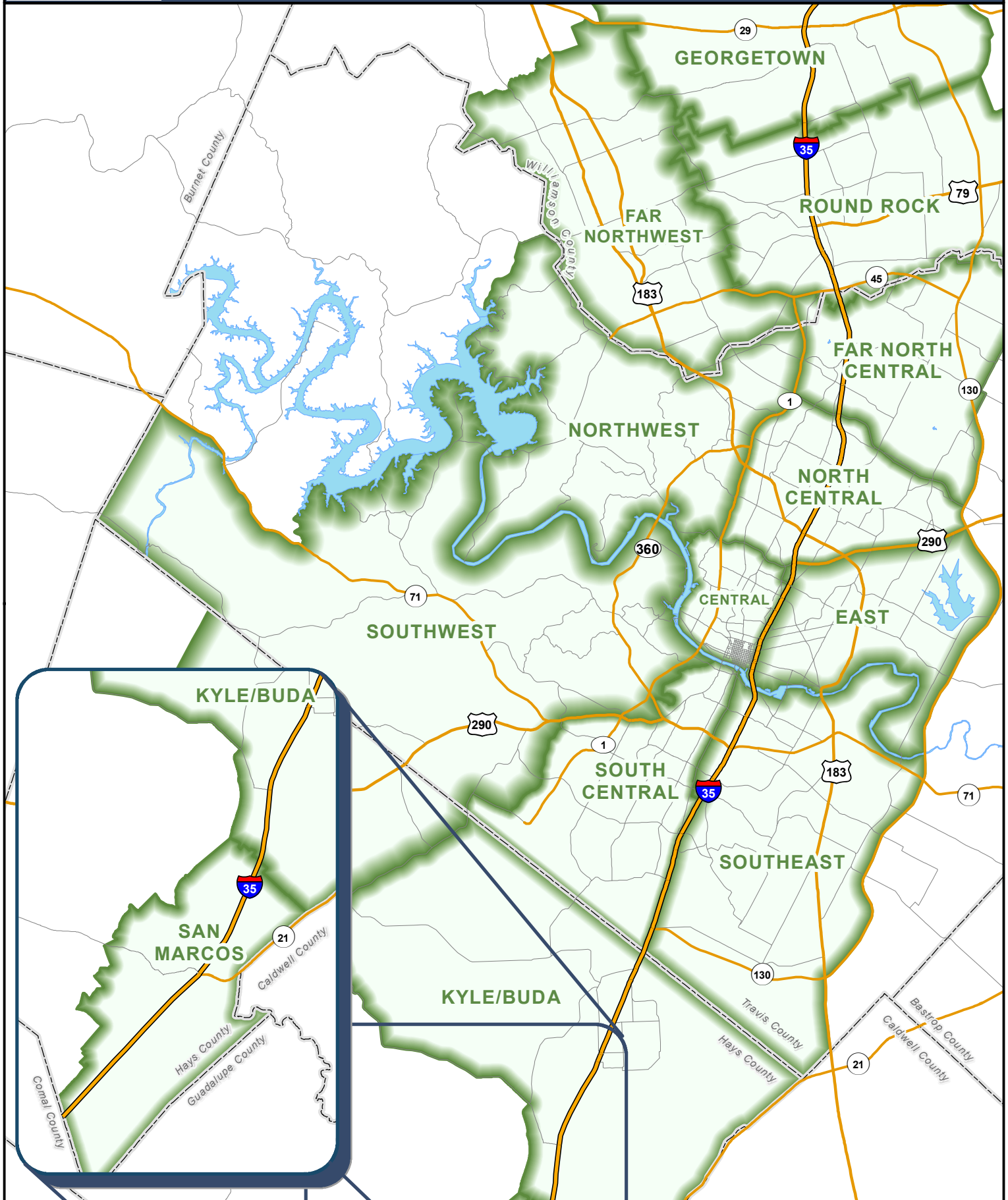
Year	Multi-Tenant Office			Multi-Tenant Industrial			Multi-Tenant Retail		
	Sq.Ft. Added/Demand	Land Needed In Acres	Office Value	Sq.Ft. Added/Demand	Land Needed In Acres	Industrial Value	Sq.Ft. Added/Demand	Land Needed In Acres	Retail Value
2018	32,625	3.1	\$8,444,003	480,348	44.1	\$43,885,583	20,500	1.9	\$4,600,815
2019	83,350	8.1	\$21,572,647	220,776	20.3	\$20,170,550	12,700	1.2	\$2,850,261
2020	15,125	1.5	\$3,914,653	0	0.0	\$0	0	0.0	\$0
2021	0	0.0	\$0	0	0.0	\$0	154,564	14.2	\$34,688,799
2022	0	0.0	\$0	0	0.0	\$0	151,276	13.9	\$33,950,873
2023	0	0.0	\$0	0	0.0	\$0	147,161	13.5	\$33,027,343
2024	0	0.0	\$0	0	0.0	\$0	144,909	13.3	\$32,521,927
2025	12,861	1.2	\$3,328,684	34,293	3.1	\$3,133,079	142,597	13.1	\$32,003,045
2026	14,206	1.3	\$3,676,797	108,680	10.0	\$9,929,229	139,814	12.8	\$31,378,456
2027	16,951	1.6	\$4,387,258	141,256	13.0	\$12,905,439	138,253	12.7	\$31,028,121
	175,118	16.7	\$45,324,041	985,353	90.5	\$90,023,881	1,051,774	96.6	\$236,049,639

Capital Market Research, May 2018

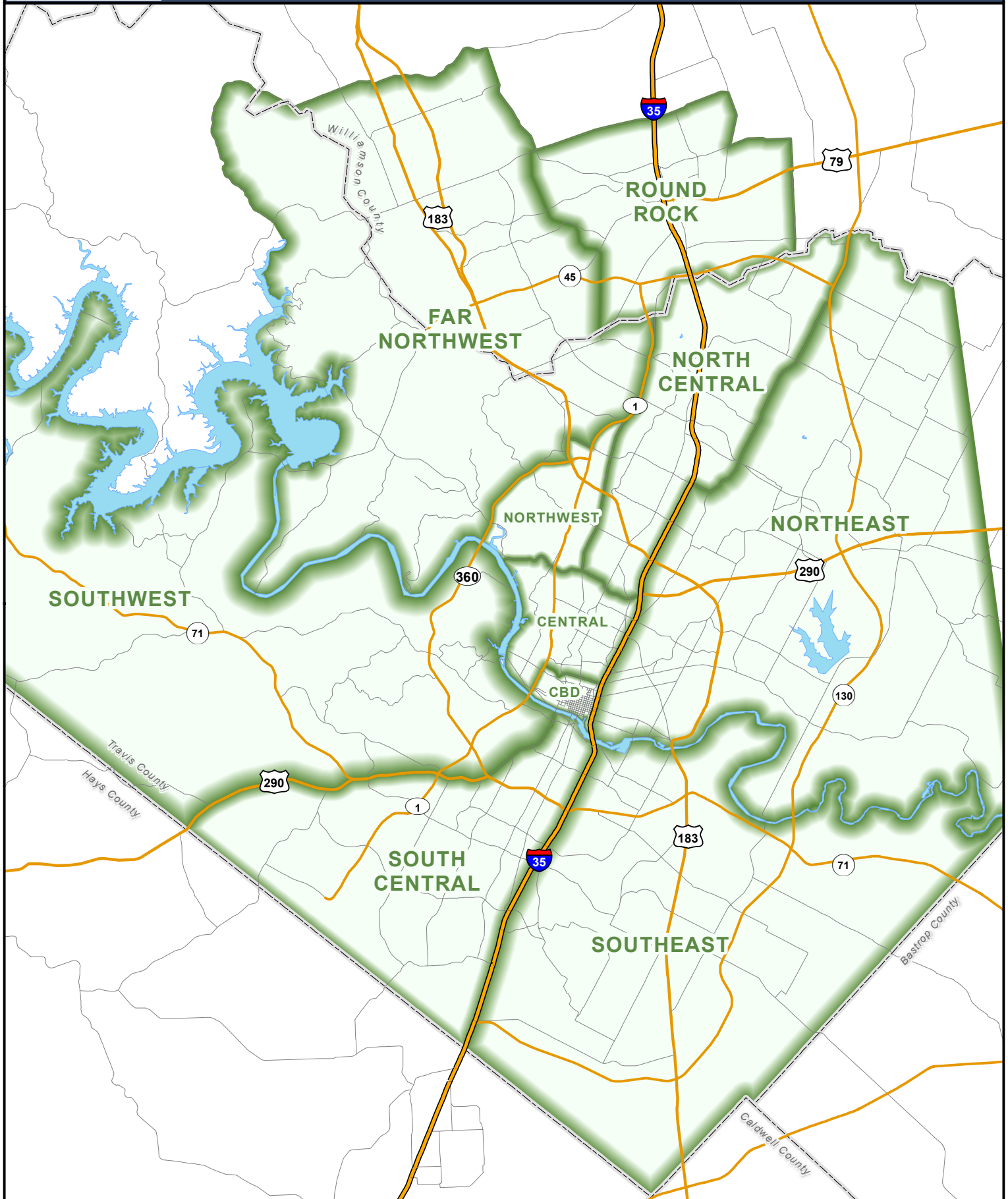
Land Use and Value Summary.xls

Note: Values estimated using RS Means data from Gorian for office & retail, and RS Means and AB Data Search for industrial.

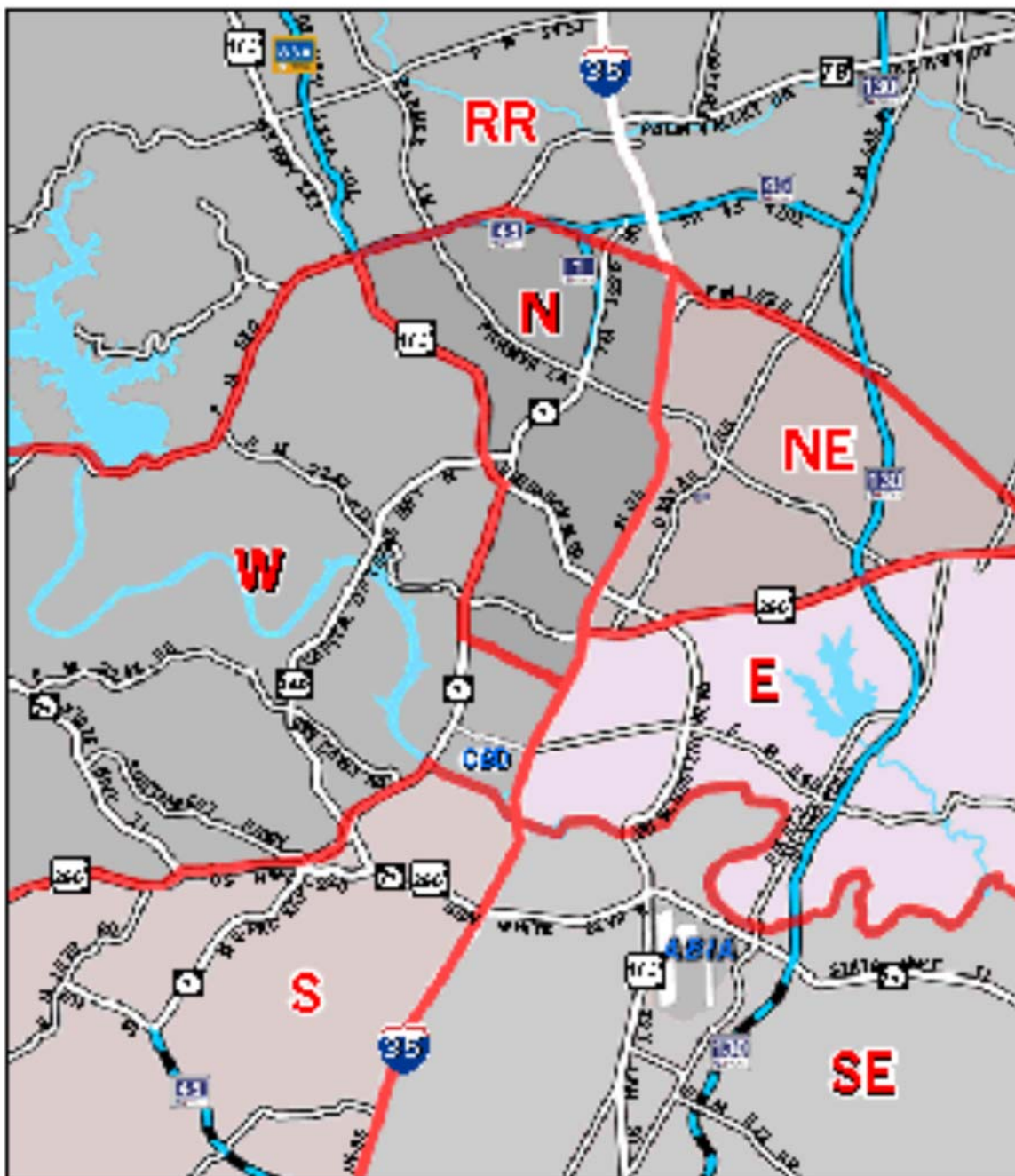
APPENDIX

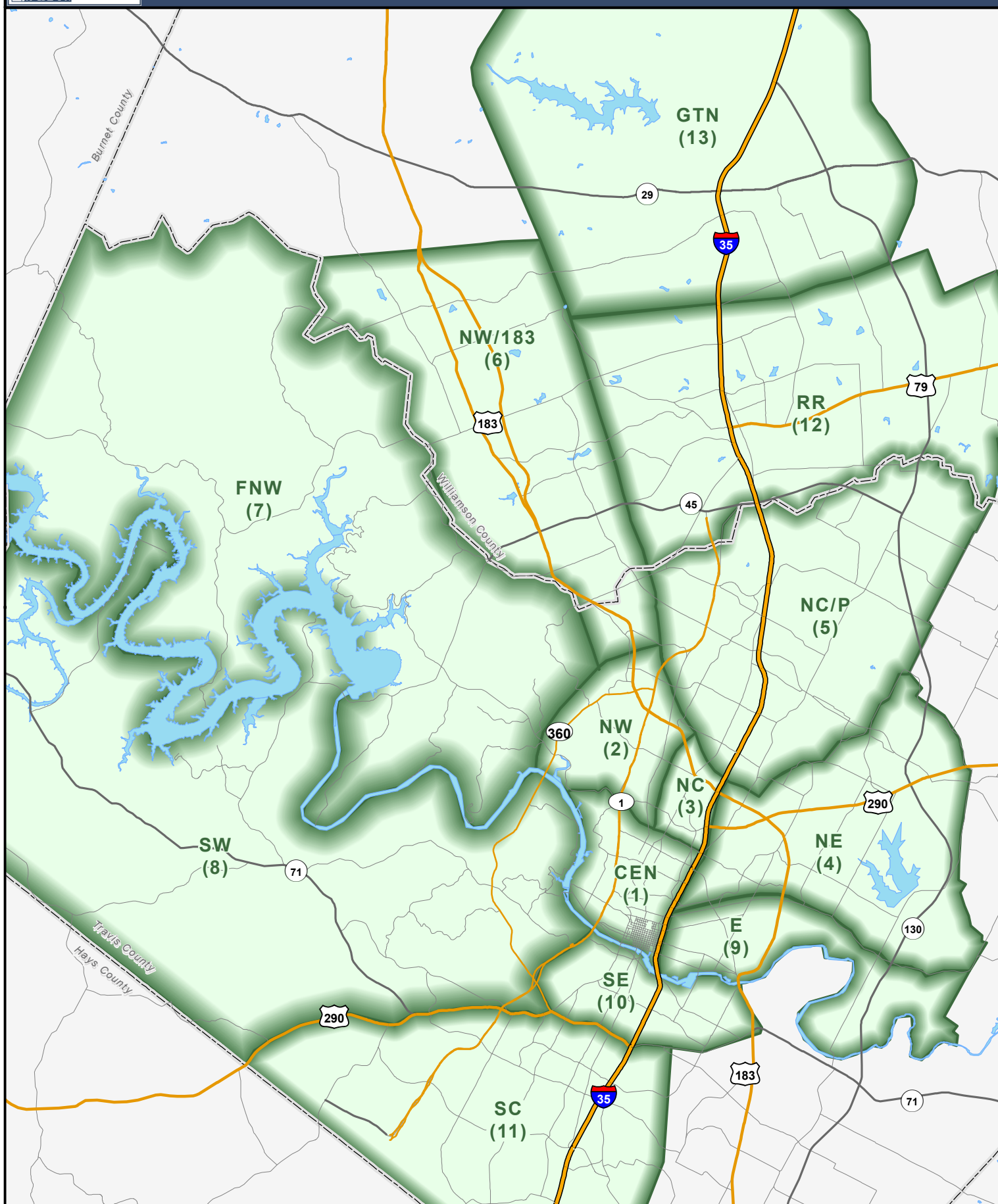


0 2.5 5 Miles



NAI INDUSTRIAL MARKET AREA MAP





Certificate

The undersigned do hereby certify that, except as otherwise noted in this market/feasibility report:
We certify that we have personally inspected the aforementioned subject property, and that our fee is in no way contingent upon the determination of feasibility reported herein.

We have no present or contemplated future interest in the real estate that is the subject of this report.

To the best of our knowledge and belief the statements of fact contained in this report, upon which the analyses, opinions and conclusions expressed herein are based, are true and correct.

This report sets forth all of the limiting conditions (imposed by the terms of our assignment or by the undersigned) affecting the analyses, opinions and conclusions contained in this report.

Recognition is hereby given to Erin Roberts, Camiel DeSmet, Katherine Burley, and Sarah Barnes for their assistance in the preparation of this report.

No one other than the undersigned prepared the analyses, conclusions and opinions concerning the real estate that are set forth in this report.

Respectfully submitted,

CAPITOL MARKET RESEARCH, INC.

A handwritten signature in dark ink, appearing to read "Charles H. Heimsath", written over a horizontal line.

Charles H. Heimsath
President

CHARLES H. HEIMSATH QUALIFICATIONS

Charles H. Heimsath graduated from The University of Texas in 1976 with a Master of Science degree in City Planning. He has been active in the real estate market since 1976 in the areas of commercial and residential brokerage, market and feasibility studies, and real estate research. Prior to his association with Capitol Market Research, Mr. Heimsath was a senior project manager in charge of feasibility/market research with an appraisal firm, R. Robinson & Associates, Inc., Austin, Texas. Between 1980 and 1983 he was responsible for managing the real estate research division at the Rice Center in Houston.

Since moving to Austin in February 1984, Mr. Heimsath has conducted or managed over 500 market research and feasibility projects covering a range of property types from residential and mixed-use subdivisions through office/warehouse and service center space to downtown office buildings. His work has also included population forecasting for several cities, consultation to the General Land Office, The University of Texas System, and economic impact studies for proposed commuter and light rail systems in Austin and San Antonio.

EDUCATION

B.S. in Economics, University of Vermont, Burlington, Vermont; June 1972

M.S. in Community and Regional Planning, The University of Texas, Austin, Texas; August 1976

Post Graduate Studies, Rice University, Houston, Texas; 1980, 1981

PROFESSIONAL MEMBERSHIPS & CERTIFICATIONS

American Planning Association

Real Estate Council of Austin, Former Board Member

Texas Real Estate Broker #188355-13

Urban Land Institute, Austin Advisory Board Member

Downtown Austin Alliance, Board Member, Policy Committee Chair

PROFESSIONAL EXPERIENCE

Capitol Market Research, Inc., President: June 1986 - Present

R. Robinson & Associates, Project Manager: Real estate research, market and demographic studies, land-use forecasting: February 1984 - June 1986

South Main Center Assoc., Associate Director: Construction management, office administration, policy development, community outreach: February 1983 - February 1984

Rice Center, Senior Associate: Senior project manager responsible for real estate research, urban development and economic forecasting: October 1978 - February 1983

Mayor's Office, City of Houston, Urban Economist: Responsible for preparing the Overall Economic Development Plan (OEDP) for Houston: October 1976 - October 1978