City of Austin Tax Increment Financing Reinvestment Zone No. 17

Amendment No. 2 to Final Project Plan and Reinvestment Zone Financing Plan

May 2018

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EXHIBITS

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Exhibit A	Map- Existing TIRZ No. 17 Boundaries
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Executive Summary

The purpose of Amendment No. 2 to the Waller Creek Tax Increment Reinvestment Zone No. 17 (TIRZ No. 17) Final Project Plan and Financing Plan adopted in 2008, and amended in 2011, is to:

- Capture the benefits of building the surface-level improvements known as Waller Creek and the Chain of Parks (the Parks)
- Amend the duration of the Waller Creek TIRZ No. 17, as it relates to the City of Austin's participation, to provide bonding capacity to fund the design and construction of the Parks
- Provide updated cost estimates for the new projects to be executed
- Update estimates for revenue growth anticipated in the TIRZ No. 17 District to support bonds for building the Parks

In accordance with State law, the Board of Directors of the Waller Creek TIRZ No. 17 at any time may adopt an amendment to the Project Plan consistent with the requirements and limitations of applicable State law. The amendment takes effect on approval by the City of Austin, as the municipality that created the zone.

<u>History</u>

On June 21, 2007, the Austin City Council approved an ordinance creating TIRZ No. 17 to finance the construction of the Waller Creek Tunnel Project. The TIRZ is located within the area bounded on the west by Red River Street from 12th Street south to 3rd Street, then west along 3rd Street to Trinity Street, then south along Trinity Street to Lady Bird Lake; on the south by Lady Bird Lake from Trinity Street east to Cummings Street, then east along Cummings Street to East Avenue; on the east by East Avenue from Cummings Street north to the south bound access road of IH-35, then along said access road north to 11th Street, then west along 11th Street to Sabine Street, and north along Sabine Street to Red River Street; and on the north by 12th Street between Sabine Street and Red River Street.

The original agreement was executed in March 2008 between the City of Austin and Travis County, and was amended in July 2011 for project design and cost estimates for the Waller Creek Tunnel Project.

Waller Creek and the Chain of Parks

The City of Austin, in partnership with the Waller Creek Conservancy, is developing *The Parks* along a restored Waller Creek in downtown Austin. Extending from Waterloo Park to Lady Bird Lake, The Chain of Parks will include 35-acres of revitalized and newly designed public open space along 1.5 miles of a restored Waller Creek. Within the public open space will be three miles of new hike and bike trails, world class art installations, green space for children and families, and engaging cultural programs for all. Historically plagued by flash floods and undesirable uses, the new park and open space district will reintroduce Waller Creek to the City; transforming a forgotten place into a signature destination for Austinites and visitors alike.

TIRZ Amendment No. 2

In this Amendment, the City seeks to extend the duration of its portion of TIRZ No. 17. Currently, the TIRZ No. 17 is set to terminate on September 30, 2028, or the date on which the project has been fully implemented and all Project Costs of the TIRZ, including any debt or interest on that debt, issued by the City in accordance with the financing plan have been paid or otherwise satisfied in full. The amended end date is *September 30, 2041*.

This amendment only affects the City of Austin's participation. If an amendment increases the total estimated project costs, the approval must be by ordinance or order, as applicable, adopted after a public hearing that satisfies the procedural requirements outlined in State law. The City has completed the necessary procedural requirements. Notice of the public hearing was published in the Austin American Statesman on May 11, 2018 and the public hearing was scheduled and held in City Council chambers on May 24, 2018.

On February 11, 2011, the City Council and the Waller Creek TIRZ #17 Board adopted Amendment No. 1 to the Final Project Plan and Financing Plan. That information – which includes the original Project Plan and Financing Plan from 2008 – as well as supporting reports, can be found: http://www.austintexas.gov/department/city-council/2011/20110217-reg.htm (Item 25)

Amendment No. 2 to the Final Project Plan and the Reinvestment Zone Financing Plan

The purpose of Amendment No. 2 to the Waller Creek Tax Increment Reinvestment Zone #17 Final Project Plan and Financing Plan adopted in 2008, and amended in 2011, is to:

- Capture the benefits of building the surface-level improvements known as the Waller Creek and the Chain of Parks ("the Parks)
- Amend the duration of the Waller Creek TIRZ No. 17, as it related to the City of Austin's participation, to provide bonding capacity to fund the design and construction of the Parks
- Provide updated cost estimates for the new projects to be executed
- Update estimates for revenue growth anticipated in the TIRZ No. 17 District to support bonds for building The Parks

In accordance with State law, the Board of Directors of the Waller Creek TIRZ No. 17 at any time may adopt an amendment to the Project Plan consistent with the requirements and limitations of applicable State law. The amendment takes effect on approval by the City of Austin, as the municipality that created the zone. The original agreement was executed in March 2008 between the City of Austin and Travis County, and was amended in July 2011 for project design and cost estimates for the Waller Creek Tunnel Project. A map of the TIRZ No. 17 is shown as Exhibit A. This second amendment extends the duration of the Zone until 2041 for the City. If an amendment increases the total estimated project costs, the approval must be by ordinance or order, as applicable, adopted after a public hearing that satisfies the procedural requirements outlined in State law. The City has completed the necessary procedural requirements. Notice of the public hearing was published in the Austin American Statesman on May 11, 2018, and the public hearing was scheduled and held in City Council chambers on May 24, 2018.

Updated Project Plan

The Project Plan amendments include updates to the planning documents, project design, a new financing plan, and an extension to the duration of TIRZ No. 17. The planning documents and subsequent project designs support the vision to transform Austin's Waller Creek from an ignored and dilapidated creek system into a signature park and public space within the heart of downtown Austin. Informed by the groundwork completed as part of the Waller Creek Master Plan (ROMA Design Group, June 2010), The Chain of Parks design plan is the planning tool directing the vision for the Waller Creek District.

Waller Creek and the Chain of Parks

The City of Austin, in partnership with the Waller Creek Conservancy, is developing the Parks along a restored Waller Creek in downtown Austin. Extending from Waterloo Park to Lady Bird Lake, The Chain of Parks will include 35-acres of revitalized and newly designed public open space along 1.5 miles of a restored Waller Creek. Within the public open space will be three miles of new hike and bike trails, world class art installations, and engaging cultural programs for all. A map of the proposed projects is shown as Exhibit B. Historically plagued by flash floods and undesirable uses, the new park and open space district will reintroduce Waller Creek to the City; transforming a forgotten place into a signature destination for Austinites and visitors alike.

Design Plan

In November 2011, the City of Austin and Waller Creek Conservancy partnered to launch *Design Waller Creek: A Competition* an international design competition. The competition called for submissions from teams of landscape architects and architects to create ideas for transforming Waller Creek; creating vibrant and safe place that is thoughtfully integrated into the fabric of the City and our cultural traditions. Design Waller Creek was founded on key principles, as articulated through past planning efforts and community outreach. These principals include:

- 1. Establish an armature for an urban district
- 2. Connect Downtown and East Austin
- 3. Encourage Redevelopment
- 4. Engage the Creek
- 5. Provide Access
- 6. Manage Sound along the Creek
- 7. Maximize Non-exclusionary uses
- 8. Create a sustainable District
- Create, Reclaim and Restore Parkland
- 10. Protect and Enhance Ecological Diversity

After a year-long competitive process, the multidisciplinary design team led by Michael Van Valkenburgh Associates (MVVA) and Thomas Phifer and Partners (TPP) was selected and affirmed by Council. Their design concept builds on the backbone of an ecologically restored Creek to create a Chain of Parks that revitalizes the existing Waterloo Park and historic Palm Park and

creates new park spaces such as the Refuge and Creek Delta. The design concept considered essential criteria: open up, connect, energize, and honor.

Open Up: Open up the creek to the City. Widen its path and shoreline wherever possible. Make entry easy. Create gradual slopes down to it often. Make its waters, structures, and trees a spectacle in the City and wonderful to occupy. Make the whole park a seamlessly felt, seen, and alluring central destination.

Connect: Assemble the complex mosaic of contiguous city areas from University of Texas to Lady Bird Lake and from East to West Austin, not only with the central Waller Creek hike and bike trail and a variety of park pathways but also with signature bridges interlaced with the trail system to connect people with diverse and stimulating activities within and near the district.

Energize: Use every opportunity to create larger singular landscape places, each with its unique identity and program options. These areas—for activities such as concerts, public events, resting in the shade, and learning about the creek's flora and fauna—will be places where people linger before curiosity moves them to the next destination. Each will have its own spectacular quality — its "wow" — complementing the otherwise understated beauty of Waller Creek as we reimagine it. In each, that archetypal urban experience — people-watching — will stimulate civic participation and unity.

Honor: Honor the past of Austin, of Waller Creek, and of the many generations of engineers and builders who erected a stone wall here and an elegant bridge there. Preserve and renovate these marks of the past so that history is present, not erased and forgotten. Similarly, honor and expand the previously established social spaces along the creek, for example the great lawn of Waterloo Park.

On October 18, 2012, City Council unanimously approved the MVVA/TPP team and the Waller Creek Design Plan.

After the Waller Creek Design Plan was approved, the City of Austin and WCC engaged MVVA to begin the *Creek Corridor Framework Plan*. *The Framework Plan* was the first comprehensive effort to establish a set of technical guidelines and creek sections for the Waller Creek District. It compiled details on existing conditions, utility locations, habitat, hydrological conditions and property ownership. Furthermore, it established specific trail alignments, environmental strategies, and utility work needed to complete the project. The Framework Plan was completed in 2015 and serves as the foundation for future design efforts.

Since 2015, the project team has advanced design of individual parks. Waterloo Park will complete design in summer 2018 and has already broken ground on a key piece of infrastructure, the structured lawn. The structured lawn will complete construction in summer 2018, allowing for the advancement of full Waterloo Park construction. Waller Delta and Palm Park are in design with estimated completion of design in late 2018. The Refuge and Narrows parks are in the concept design phase and are poised to move forward.

With each phase of design, community input has been an essential part of the planning process. Community meetings, stakeholder working groups, and online surveys have provided vital inputs into the design process and shaped the core values articulated above. Topics of engagement have

included play, food service, lighting, safety, materials and more. These efforts will continue in the phases outlined in Amendment No. 2.

Waller Creek and The Chain of Parks is consistent with other citywide planning initiatives such as Imagine Austin by establishing goals to bring "Nature Into the City", develop "Complete Communities" through a connected landscape, and a Thriving" community by supporting a healthy and creativity Austin. In addition, the design concept also achieves design excellence by turning the rating system for healthy creeks, as described in the outlined in the 2013 Watershed Protection Ordinance, into cutting edge design. Finally, the design concept will uphold the highest standard of sustainability by submitting the design for SITES certification, a comprehensive rating system designed to distinguish sustainable landscapes, measure their performance and elevate their value (http://www.sustainablesites.org).

Project Plan

The Project Plan will support the continued transformation of the eastern side of downtown Austin into a safe, vibrant, and accessible amenity in the heart of the City, building upon the new Waller Creek Tunnel. Currently, 35-acres of public land in the Waller Creek District have limited public improvements and have fallen into disrepair. The Project Plan will further leverage the land that the Tunnel Project removes from the 100-year flood plain by turning public lands into a world-class parks amenity that provides a safer, cleaner public space. The Parks are located along lower Waller Creek between 15th Street and Lady Bird Lake. It includes two historic parks, Waterloo Park and Palm Park, and plans for future parks along the shoreline of Lady Bird Lake and at the site of the existing APD headquarters.

The current implementation plan strategically bundles geographic regions for the Parks over time in phases. This approach allows time for design development and fundraising, while delivering park spaces as quickly as possible to the community. Parks are able to serve the community individually until the entire system comes online. Surface-level improvements to the parks were not included in the original TIRZ No. 17 Project Plan or first amendment; these projects are all new scope to the Project Plan. As shown in the Project Plan Map (Exhibit B), the Waller Creek District includes the Waterloo Park Link, Creek Delta Link, Connectivity Link, The Refuge and the Pontoon Bridge.

Waterloo Park Link

The largest of the Parks, Waterloo Park will be a gathering space for the City of Austin, including: a civic lawn, a performing arts venue, food service in the park, unique hill country gardens, wetlands, and extensive nature-based play areas. Within this link, a connection to Symphony Square and restoration of the creek and adjacent open space will be completed. Collectivity, the space will be programmed with complementary activities furthering the mission to promote engaging art and educational activities.

Creek Delta Link

Creek Delta will be the gateway to the Waller Creek District from Lady Bird Lake and the beloved Ann and Roy Butler (Butler) Trail system. Stretching from Lady Bird Lake to 4th Street, the Creek

Delta meanders through a variety of urban landscapes creating opportunities for diverse nature and a stable channel within Waller Creek. The hike and bike trail will follow the path of the creek, allowing users to experience the natural ecology of the tree canopy as well as more immersive experiences along the Creek's banks. At strategic locations, the trail system will connect at street level providing vital connectivity to downtown, the expanded Downtown MetroRail Station, onstreet bike infrastructure and the Rainey Street District.

Within the Creek Delta Link, the historic Palm Park will revitalized. Calling on the history of surrounding neighborhoods, Palm Park will be an important gathering place for families and children in downtown. The park will have nature-based playscapes, splash pads, picnic and grilling areas, and important connections to East Austin.

As part of the Waller Creek Tunnel project, key property located between 4th and 5th Street along the IH35 Frontage Road was acquired to construct the 4th Street Side Inlet. It has been determined that this 4th Street site offers the best potential for a primary operations & maintenance (O&M) facility. Additionally, the City (the Watershed Protection Department and the Parks and Recreation Department) have identified the need for a shared-use O&M facility within the downtown zone to optimize Waller Creek Tunnel operations and improve daily servicing for Austin's downtown parks system. Because the City will retain ownership of this property, it is the most practical solution for both the City and WCC to establish an O&M presence realized through a shared-use facility.

Connectivity: 5th to 11th Street

Connecting the north and south portions of the Parks will be achieved through trail improvements between 5th and 11th Street. Trails and park spaces will connect Waterloo Park and Symphony Square to Palm Park and Lady Bird Lake.

Referred to as The Narrows, 5th to 7th Street is the most urbanized section of the Creek, highlighting the unique challenge of creating accessible pathways and restored nature in the urban core. Embracing the challenge, critical trail connections will be built to provide access to historic downtown, the Red River Cultural District and future park and open space within the district. Nature will also be restored throughout; providing habitat in the creek and unique experiences for visitors to engage with nature in the heart the city.

The Refuge

The Refuge will be a completely new park between 7th and 9th Street where the current Austin Police Department Headquarters and Municipal Court is located. The Refuge will offer an immersive experience for adults and children to engage with the Creek. This will provide a vital programmatic space for efforts to connect all members of our community with meaningful experiences in nature.

Pontoon Bridge

Pontoon Bridge is a unique bridge connecting the north and south shore of Lady Bird Lake and the Butler Trail System to the Waller Creek District. Once complete, the bridge will open up access to downtown, and beyond, to South Austin. Residents of South Austin will be able to walk

or bike from the South to downtown, the Chain of Parks, UT, and more, all while enjoying a restored Waller Creek.

The investment in the Parks represents a new scope for the TIRZ. It will deliver on the promise of the Tunnel; providing economic benefits to the Zone and an amenity for the broader community.



Updated Reinvestment Zone Financing Plan

The project cost included are based on estimates completed for the City of Austin and the Waller Creek Conservancy as part of the Waller Creek Design Plan and subsequent park design updates. The approved financing plan did not account for any of these surface-level park improvements. This plan is being amended to reflect the addition of the Parks projects and their estimated costs in 2018 dollars with escalation built in for projects being delivered in future years.

Project Costs

As shown below, total project costs include construction, land acquisition, design/engineering, administration, and contingency costs. A significant portion of the project is funded through other existing and proposed non-project sources. The current estimated total cost of the project is an estimated \$355,000,000, including operations and maintenance, through 2041. Of this total, an estimated \$246,000,000 is capital cost and \$110,000,000 of that capital cost is proposed to be added to the Reinvestment Zone Financing Plan in this amendment.

Updated List of Estimated Project Costs of the Zone

As previously indicated, the Parks will be designed and constructed between present day and 2026. The table below depicts the estimated project costs developed by the design team and are stated in 2018 dollars with escalation built in for projects being delivered in future years. The total project cost is stated in the "Total" column, while the Reinvestment Zone eligible costs are listed in the "TIRZ" column. Non-project costs are paid for through a combination of existing City funds, private philanthropy, and contributions from adjacent property owners and developers. The funding match from the Waller Creek Conservancy will be contributed on a project-by-project basis with a major emphasis on funding long-term operations and maintenance, which will be financed through fundraising, earned revenue, and contributions from the Downtown Austin Alliance under their Public Improvement District (PID). The match funding and other City sources will be managed through the Phase Plan process as outlined in the Joint Development Agreement. These costs were not previously estimated in the TIRZ No. 17 Project Plan or the first amendment to the Plan.

Waller Creek Chain of Parks | Project Plan

	Total	w	CC/Developers		State		CoA		TIRZ
City Staff Resources	\$ 2,500,000	\$	-	\$	-	\$	-	\$	2,500,000
Waterloo Park Link	\$ 135,950,000	\$	92,200,000	\$	850,000	\$	15,600,000	\$	27,300,000
Creek Delta Link	\$ 108,700,000	\$	50,500,000	\$	-	\$	21,500,000	\$	36,700,000
Connectivity: 5th-11th Streets	\$ 50,000,000	\$	20,500,000	\$	-	\$	4,000,000	\$	25,500,000
Pontoon Bridge	\$ 31,750,000	\$	23,750,000	\$	-	\$	-	\$	8,000,000
Refuge	\$ 56,750,000	\$	46,750,000	\$	-	\$	-	\$	10,000,000
Endowment	\$ 5,000,000	\$	5,000,000	\$	-	\$	-	\$	-
	Total	w	CC/Developers		State		CoA		TIF
Total Capital Cost	\$ 245,650,000	\$	93,700,000	\$	850,000	\$	41,100,000	\$	110,000,000
Total O&M Cost	\$ 109,250,000	\$	109,250,000	\$	-	\$	-	\$	-
TOTAL PROJECT COST	\$ 354,900,000	Ś	202,950,000	Ś	850,000	Ś	41,100,000	Ś	110,000,000

Notes

All project costs include estimated operations and maintenance costs from park opening through 2041

Assumes high level of operations and maintenance as described in section 2.2.8 of the Operating and Management Agreement between WCC and CoA

Zone Administration is an eligible TIRZ No. 17 expense that was included in the original TIRZ No. 17 project plan and mentioned in Amendment 1. Expenses were previously estimated at \$30,000 annually. These costs are currently being absorbed by the City of Austin and have not been charged to the TIRZ No. 17 to date. As part of the amendment, the City anticipates an additional \$2.5M in costs associated with zone administration against the available TIRZ No. 17 funds and includes the allowance for additional staffing beginning in Fiscal Year 2018-19. This is reflected above in the City Staff Resources cost.

<u>Capital Reserve Fund</u> will be included as part of the annual TIRZ No. 17 appropriations for each project and utilized as-needed for capital repair and reinvestment. The Waller Creek Conservancy will forecast these capital reinvestment needs as part of the comprehensive operations and maintenance plan for each project and will contribute the necessary match to cover these costs through their fundraising efforts.

Updated Economic Feasibility Studies

Capital Market Research prepared economic models of development resulting from the project and increases in tax revenues resulting from the development. The project was found to be economically viable. These economic studies are on file with the Board of the TIRZ No. 17 and the City Council of the City, and are incorporated by reference into this project plan. The Waller Creek TIF estimated property valuations are included in Exhibit D.

<u>Updated Captured Value of the Zone During Each Year of its Existence</u>

The estimated captured appraised value of TIRZ No. 17 during each year of its existence has been updated based on the market research completed by Capitol Market Research (CMR). Updated market demand and absorption and projections in assessed valuation increases are included. (Exhibit D).

Exhibit E shows the estimate net City revenue included in TIRZ No. 17, as well as estimated debt service cost for the additional \$110 million in debt to be issued for the proposed projects included in the Plan.

Updated Estimated Amount of Bonded Indebtedness to be Incurred

The estimated amount of bonded indebtedness related to the updated project plan to be incurred by the TIRZ No. 17 is shown below:

Estimated Additional TIRZ No. 17 revenue	\$255 M
Estimated Debt service required for TIRZ No. 17, Amendment #2	
(\$110 M debt issuance)	\$179 M
Estimated remaining balance in 2041	\$75 M

<u>Updated Description of the Method of Financing All Estimated Projects Costs and the Expected Sources of Revenue to Finance or Pay Project Costs</u>

The updated financing plan includes the following changes that, when combined, results in a sound and stable financing plan for the Waller Creek tunnel project.

- Reducing debt service costs by phasing the issuance of debt to more closely match project spending and anticipating savings from a more favorable interest environment
- Applying additional funding sources, such as interest earnings, to reduce the amount of costs to be financed with debt

The combination of the increase in value during the current term of the TIRZ associated with Waller Creek Tunnel and these new investments in the Parks, plus extending the duration of TIRZ No. 17 for the City of Austin's participation at 100% capture, allows for issuance of additional debt to finance the additional projects included in the updated Project Plan. All other funding sources from the previous agreement as amended remain in place as well.

The appropriation and bond sale schedules for the TIRZ No. 17 are projected through 2025 and are based on individual project timelines and related spending plans from the Project Plan table. These schedules are contingent upon on the cash flow and revenue models described above and are subject to change based on current economic conditions.

Updated Tax Rates Affecting the Tax Increment Revenue

Amendment 2 includes only the City of Austin contributing 100% of their collected incremental revenue to the zone from 2029 – 2041. Tax rates currently in effect are shown below.

Taxing Unit	Total Tax Rate	Tax Rate Dedicated	% Dedicated
City of Austin	\$0.4571/\$100	\$0.4571/\$100	100%

Updated Duration of the Zone

The duration of the original TIRZ No. 17 was 20 years. The Austin City Council established January 1, 2008 as the first year of the Zone, with the base valuation dated January 1, 2007. January 1, 2008 was the first date for which TIRZ No. 17 captured appraised value was recorded. TIRZ No. 17 is set to terminate on September 30, 2028, or the date on which the project has been fully implemented and all Project Costs of the TIRZ No. 17 District, including any debt or interest on that debt, issued by the City in accordance with the financing plan have been paid or otherwise satisfied in full. In this Amendment, the City seeks to extend the duration of the TIRZ No. 17. The amended end date is September 30, 2041. The base year of TIRZ No. 17 will remain January 1, 2007.



Exhibit A: Map of TIRZ No. 17



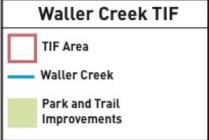


Exhibit B: Map of Projects Proposed in Amendment No. 2

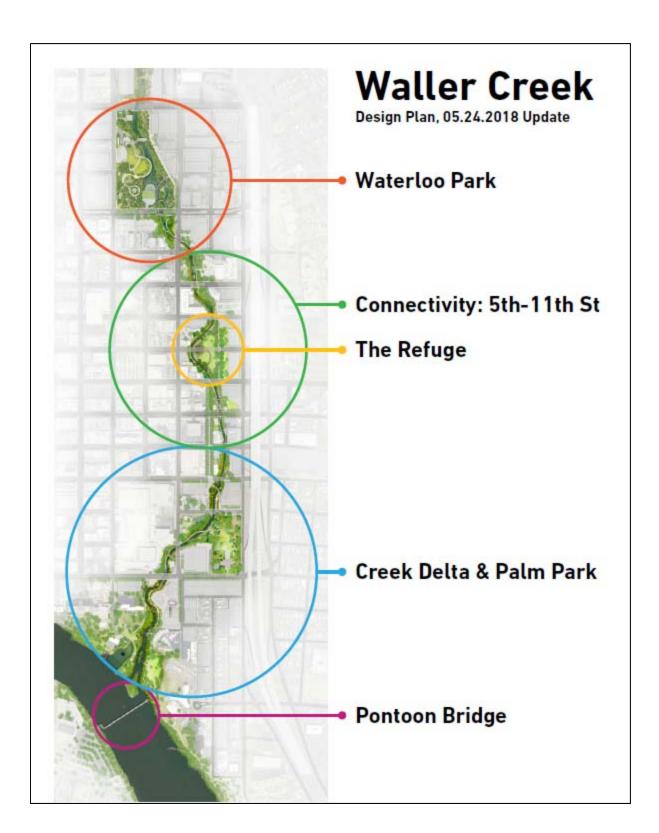
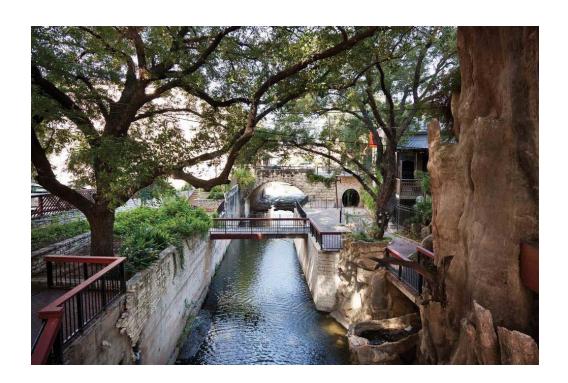


Exhibit C: Downtown Parks and Potential Property Value Implications in Austin

Downtown Parks and Potential Property Value Implications in Austin

Spring 2018



austintexas*gov



Overview

There is a long understanding of the influence that parks and open space have on property values. Urban real estate markets have consistently shown across time that many are willing to pay a larger amount for property located close to parks and open space areas than for a property that does not offer this amenity. The higher value of this property means that their owners pay higher property taxes. In effect, this represents a "capitalization" of park land into increased property values of proximate land owners. Termed the "proximate principle" by Dr. John Crompton of Texas A&M, the idea dates back to the first half of the nineteenth century in England, where it started as a strategy used by private developers to raise the value of homes in their developments. Once implemented, park expenditures came to be seen as investments rather than costs in the minds of taxpayers and elected officials, facilitating public acceptance of publically-funded parks as an integral component of urban development.

During the mid-nineteenth century, Frederick Law Olmsted brought the idea of the proximate principle to the U.S. from England, broadcast it widely based on its intuitive appeal, and provided data from his New York Central Park project, which appeared to empirically confirm it. In 1919, his son Frederick Law Olmsted, Jr. wrote: "It has been fully established that...a local park of suitable size, location and character, and of which the proper public maintenance is reasonably assured, adds more to the value of the remaining land in the residential area which it serves than the value of the land withdrawn to create it." Hence, Olmsted's data and advocacy were used to justify major early park in-vestments in many U.S. cities.

The Work of Dr. John Crompton

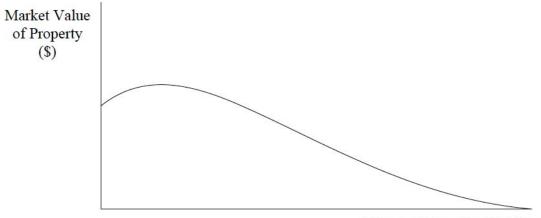
More recently, academic research has better defined and calibrated the range and scope of the impacts of parks on property values. Specifically, the questions of "how much and how far" have been addressed. Crompton writes that "while a definitive generalizable answer is not feasible given the substantial variation in both the size, usage and design of park lands in the studies, and disparity in the residential areas around them, which were investigated. However, some point of departure based on the findings reported here is needed for decision-makers in communities who try to adapt these results to their local context. To meet this need, it is suggested that a positive impact of 20% on property values abutting or fronting a passive park area is a reasonable starting point guideline.

By the same token, Crompton also speaks to "how far:"

There is consensus (that there is a) substantial impact up to 500-600 feet (typically three blocks away from the park). In the case of community-sized parks (say upwards of 40

acres), it tended to extend out to 1,500-2,000 feet, but even in those cases the premium was small after 500-600 feet. The area of proximate impact of a park should be limited to 500 feet or three blocks. The empirical results suggest this is likely to capture almost all the premium from small neighborhood parks and 75% of the premium from relatively large parks. The remaining 25% is likely to be dissipated over properties between 500 and 2000 feet.

The following diagram from Crompton provides an illustration of the general pattern of influence associated with parks on property values.



Distance From Facility Site

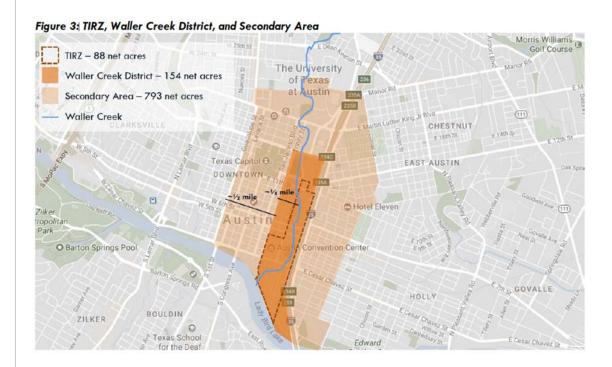
THE PROXIMATE PRINCIPLE: The Impact of Parks, Open Space and Water Features on Residential Property Values and the Property Tax Base by John L. Crompton, Distinguished Professor Texas A&M University.

https://www.researchgate.net/profile/John_Crompton3/publication/316090725_THE_PROXI MATE_PRINCIPLE_The_Impact_of_Parks_Open_Space_and_Water_Features_on_Residential _Property_Values_and_the_Property_Tax_Base/links/58efb7630f7e9b6f82dbbf2f/THE-PROXIMATE-PRINCIPLE-The-Impact-of-Parks-Open-Space-and-Water-Features-on-Residential-Property-Values-and-the-Property-Tax-Base.pdf

2017 HR&A Waller Creek Study

In 2017, HR& A Advisors (HR&A) was tasked by the Waller Creek Conservancy with measuring the economic and fiscal impacts of developing the Waller Creek chain of parks (the Park) to complement the restoration of Waller Creek. As part of that effort, the analysis considered the value premium and accelerated development activity anticipated in three Park-adjacent geographies. As shown in Figure 3, HR&A calculated the incremental value generated by the

Park in the following areas: 1) the TIRZ, 2) the wider Waller Creek District, and 3) the Secondary Area, which encompasses approximately a ½-mile radius from the Park edges.



The methodology employed to evaluate the potential economic benefits of the Park was based on a review of local market conditions and comparable open space projects from across the country. HR&A first established baseline market conditions in the vicinity of the Park based on third-party research and data. HR&A reviewed background materials on the district, including the market analysis report commissioned by WCC, which identified market trends in Downtown Austin, established a baseline condition for new development, and projected the future growth and absorption in TIRZ and the wider Waller Creek District.

To understand the impact that the Park would have on these baseline conditions, HR&A researched comparable public space projects from around the country. Based on nearly three decades of parks-related experience and knowledge, HR&A identified a long list of 10 to 12 potential peer parks. HR&A culled the long list to four comparable park examples, and synthesized the quantifiable economic impact that each of the four parks had on its surrounding neighborhoods. These economic benefits included property value premiums, park-oriented development, tourism and spending impacts, and construction activity.

Additional benefits such as neighborhood connectivity, social cohesion, and environmental impacts were also noted.

Figure 6: Summary of Park Impacts in Value Premiums

Park	Study Area	Value Premium	Implications for Waller Creek
Klyde Warren	Adjacent	42-60%23	Park-adjacent commercial properties can experience significant increases in value
High Line	½ mile	10%24	Similar boundary as Secondary Area with strong market demand
Katy Trail	1/4 mile	25% ²⁵	Similar boundary as Waller Creek District with a similarly low FAR
Rose Kennedy	½ mile	31%26	Limited capacity for new development in a high- demand market increased values of existing properties

²¹ Includes public, private, and institutional investment

The overall findings were as follows

- <u>Value premium</u>. The Park is likely to create a 20% value premium on existing and new properties in the TIRZ, including modest impacts since the Park announcement in 2010.
- <u>Faster development</u>. Future development activity in the TIRZ would nearly double baseline projections to up to 585,000 SF of new development annually, including 162,000 SF of office, 320 multifamily rental units, and 140 condo units.8
- <u>Denser typologies</u>. Reinforced demand could increase overall development capacity in the 6.9 million SF TIRZ area by 25%.HR&A then applied a premium to the baseline assessed values in each of the three geographies based on the value premiums observed in similar impact areas in our case studies.

Specifically related to the impact of the Park beyond the TIRZ itself,

HR&A approximated the assessed value for the Secondary Area by applying an order of magnitude assessed value per net acre consistent with the one observed in the Waller Creek District. Based on the demand for office, residential multifamily, attached housing, and condos estimated by (the market study) for the TIRZ and the Waller Creek District, we projected the annual demand for the next 24 years in each of the three geographies For the Secondary Area, we assumed that 100% of demand projected by (the market

²² Includes benefit attributable to burying of the Freeway

²³ Phil Puckett, CBRE; market value of selected class-A office buildings pre- and post-park

²⁴ HR&A High Line Economic Impact Assessment Presentation, 2012; adjusted for 2016 revision

²⁵ Dallas Morning News

²⁶ HR&A Rose Kennedy Greenway: Creating Long-Term Value 2010

study) in Downtown Austin could be captured given the similar size and borders of Downtown and the Secondary Area.

Overall, the HR&A study is consistent with the academic literature as summarized by Crompton, both in terms of the order of magnitude of parks on adjacent property values and the implications, especially for "signature parks," beyond the typical catchment area.

Conclusions

The factors that have driven the sharp increase in density, values, and overall taxbase in downtown Austin show no signs of abating. The growing presence of national credit tenants, augmented by the desire and need to provide the lifestyle amenities that support their workforce (and well-heeled tourists and residents), has helped create substantial demand for upscale offices, entertainment, and housing. A missing component that could bolster this already strong market is enhanced parks and outdoor space, as downtown Austin lacks the feature park amenities found in many of the other modern urban centers with large concentrations of these types of firms, residents, and visitors. Completion of the Waller Creek project addresses this issue, and should enhance what is already a robust central city property taxbase.

There is value to Austin beyond the implications for property values and recreation, as outlined by Crompton:

There are at least three additional sources of economic value attributable to park and open space amenities which are not captured by this capitalization approach.

- First, the capitalization of park and open space value into property prices. . .does not capture the "public" benefits that accrue to those outside the proximate influence from such features as wildlife habitat, improved water quality, reduced soil erosion, reduced flooding, et al.
- Second, there is evidence to suggest that investment in parks affects the
 comparative advantage of a community in attracting future businesses and
 residents. However, the proximate capitalization approach does not capture the
 secondary economic impacts attributable to park provision that accrue from such
 sources.
- Third, relatively large parks .. are likely to impact property values for distances beyond three blocks, and omission of these premiums may lead to underestimation of proximate impact that could be substantial. In addition, large parks are likely to have value to populations beyond the radius that can be captured by proximate capitalization even if that radius is extended out to 2000 or 3000 feet. This occurs because some users of a large park are likely to come

from beyond this radius e.g. two or three miles distance. The benefits accruing to these users cannot be captured in capitalization calculations.

As the City contemplates extending the duration of the Waller Creek TIF, the financial projections are limited to the TIF itself, and therefore make no allowance for positive "spillover" to the value of other properties in area as a result of new development (beyond inflation), which could occur. The literature and experience of comparable communities suggests otherwise, and moreover aligns well with the desires of businesses and residents who seek to be in Austin's urban core.

Appendix 1

Austin Area Long-Term Economic Forecast

Growth in the Austin metro area (MSA) abated to some degree over the past several years, as the combination of slower national growth, rising costs, and the law of large numbers combined to curtail the rate of expansion. Job growth (as measured by the non-ag employer wage & salary survey) decelerated during 2016; with 36,700 net new jobs added, a pace of 3.8% was off from 4.4% during 2015. Most of this growth was found in the commercial sectors of the economy, reflecting continued population growth, although consumer spending has returned to long-term trend levels. The slowdown became more pronounced in 2017, with a net gain of 27,300 jobs, 2.7 percent growth. In recent years, the private sector has led the way, but the current growth rate actually is equivalent on both the public and private sector side of the equation. While growth is slowing, Austin continues to expand more rapidly than Texas or the nation as a whole.

Short-term local economic trends are largely a function of factors that influence demand, while long-run performance is more strongly shaped by capacity, clusters, and areas of competitive advantage that are reflected in the structure of the regional economy. In that light, the rising presence of global firms in Austin means that national and international trends increasingly influence the course of the local economy. In addition to the obvious connection for the bulk of local device technology firms, information and social technology and professional services (which also are trending toward serving a global customer base) are rapidly growing in Central Texas. Tourism is also an important component of the regional economy that responds to external trends. Meanwhile, local consumer confidence is influenced by the overall national situation and outlook.

At the same time, the growing appeal of the region as a site for expansion and relocation (of both people and firms) helps Austin consistently perform "above the line" relative to the U.S. as a whole. As a result, the outlook is bright, with most aggregate economic measures expected to perform well over the forecast horizon. Specifically, MSA population should grow at a compound annual rate of 2.8 percent through 2041, while the local job base will rise 2.4 percent and personal income will grow 6.5 percent during the same period. Factors that will continue to shape the area's future include:

Ongoing migration to the region and downtown. While population growth will tend
to follow the local economic cycle to some degree, the longer-term outlook is for
Austin to remain an attractive site for relocation, especially for those whose income
is not tied to the local economy. Attraction of people is arguably as important to
Austin's economic future (and tax base) as attraction of firms, and the community

will be well served by remaining an attractive destination for those who can afford to live wherever they choose.

- Continued strength of the traditional pillars of the local economy. Sometimes, it's
 hard to remember that Austin traditionally is a government and university town.
 While private sector side of the economy has grown by leaps and bounds over the
 past several decades, the public sector (which for these purposes include UT) still
 accounts for 17.7 percent of the MSA job base, compared to 15.8 percent in the rest
 of the state. While this gap may narrow over time, the almost 200,000 public sector
 jobs in the region are an important source of income and economic stability.
- Maintenance of a diversified technology base. The local technology sector has
 evolved from devices to include a range of activity that leverages intellectual
 property, and increasingly reflects the integration of information technology into
 "non-technology" products and services. Its tough to say exactly how this will evolve;
 the key is for Austin to remain a center of whatever the next iteration(s) will be.
- Commercialization of emerging medical capacity. Dell Medical School at UT-Austin is but the most visible sign of the emerging capacity in Austin around medicine and innovation. While this remains early stage, the opportunity is substantial, as most of the ingredients (workforce, venture capital, professional services support, overall business climate) are favorable for significant commercialization of the intellectual property that emerges in the medical space in Austin in the near future.
- Balancing tourism with quality of life. Much of what makes Austin attractive to
 residents also appeals to visitors, a fact accelerated by enormous growth in recent
 years around tourism infrastructure (especially related to lodging) and growing
 number of events that bring tourists from all over the world to Central Texas.
 However, tourism can be fickle, and today's hot destination can easily be left behind
 in the search for new and interesting experiences. For many locals, that might not be
 such a bad thing; the goal would be to find that balance that reconciles the benefits
 of tourism (to the economy and City finances) with the impact of increased
 congestion.

In sum, the Austin area is projected to grow at a relatively rapid pace; while rates may somewhat slower than that experiences historically (due in part to the law of large numbers), the region should continue to outperform the state and nation as a whole.

Appendix 2

Trends in Downtown Austin

The overall economic boom in Austin has been especially evident downtown, as occupancy and rental rates have consistently exceeded performance citywide. The Downtown Austin Alliance (DAA) estimates that there are approximately 86,000 workers in downtown, occupying around 9 million square feet of office space (of which just less than 1 million square feet has recently been completed. Meanwhile, DAA indicates that there are slightly less than 15,000 residents within a mile of Sixth and Congress, occupying the 9,000 new housing units that have been built downtown since the turn of the century.

Downtown has become a focal point in a number of ways, including from a taxbase standpoint: Since 2006, the compound annual growth rate of the ad valoreum taxbase i pace as the rest of the city – including over \$17 million last year. Said another way, the entire City property taxbase would have \$3.7 billion (or just over 3%) lower at the balance-of-the-city pace, requiring a tax rate increase of almost 1.4 cents/\$100 to make up the difference.

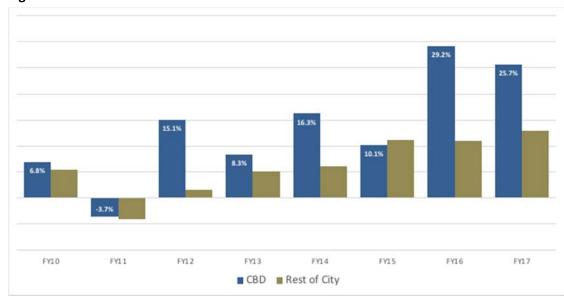


Figure X. Growth in Ad Valoreum Taxbase

Figure X. Hotel Occupancy and Revenue/Room



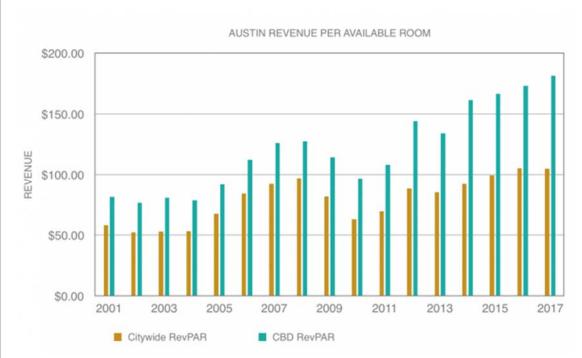


Figure X. Office Occupancy and Rental Rates



Exhibit D: Waller Creek Tax Increment Finance Analysis



Waller Creek

Tax Increment Finance (TIF) Analysis

Prepared for

City of Austin
301 West Second Street Austin,
Texas 78701

Ву

Capitol Market Research, Inc.

1102 West Avenue, Suite 100 Austin, Texas 78701

On

April 24, 2018



Real Estate Research, Land Development Economics & Market Analysis

April 24, 2018

Mr. Greg Canally Deputy Chief Finance Officer City of Austin 301 West Second Street Austin, Texas 78701

Dear Mr. Canally:

As requested, we have completed the Tax Increment Finance (TIF) analysis for the Waller Creek Parks District in Downtown Austin, Texas. This analysis examined the potential extension of the Waller Creek TIF from 2028 to 2040 and concludes with annual estimates of value and tax revenues for the Waller Creek TIF.

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 primarily on original research and analysis conducted by CMR staff and secondary sources that include the U.S. Bureau of Census and the Travis Central Appraisal District. 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

Charles H. Heimsath

President

CHH/jav

Capitol Market Research 1102 West Avenue, Suite 100 Austin, TX 78704 (512) 476-5000

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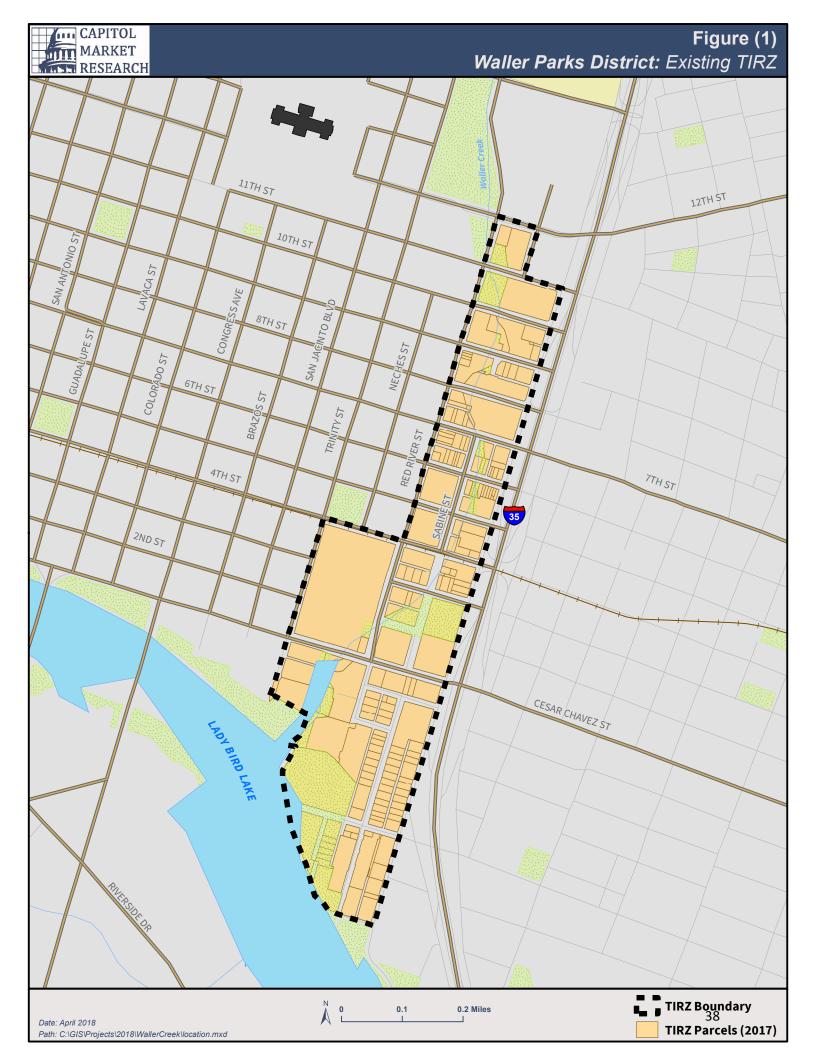
Overview

This report has been prepared for the City of Austin Finance Department to examine the development potential and anticipated future assessed values within the Waller Creek TIF zone through 2040.

There are many public and private funding sources that may be employed to finance the capital and operating expenses of a world class urban park. Direct City funding through the allocation of General Fund revenues is the traditional source of funds, but the competition among City departments for limited resources makes this an unsustainable alternative in the long term. Currently the City, the Waller Creek Conservancy and the Downtown Austin Alliance are engaged in discussions that may result in a shared responsibility for the ongoing operation and maintenance of the Waller Creek Parks District. Recognizing that taming the flood waters in Waller Creek was a necessary first step toward the creation of the Waller Parks District, the City of Austin created a Tax Increment Finance district in 2009 to pay for the Waller Creek Tunnel project. The tunnel construction began in 2010 and became operational in late 2017. Approximately \$106 million in TIF bonds were sold in five "tranches" from 2011 through 2016 to pay for the tunnel. However, additional funding is needed to create and operate the park system made possible by the construction of the bypass tunnel.

This report will evaluate the future potential for development and tax base enhancement in the area that surrounds the Waller Parks District, in anticipation of the issuance of additional TIF bonds for the existing TIF district.

The following sections of the report present a demand based forecast for the Waller Parks District, for the existing TIF district through 2040. The demand forecast establishes the pace of development that is likely to occur over the next 22 years. The development potential is then converted into new development value and used to calculate the change in tax base and property tax revenues. In addition, the report provides, in the appendix, an inventory of the many projects currently underway or planned for the district.



GENERAL AREA ANALYSIS:

DEMAND DRIVERS

Economic Context

Overview

The Waller Creek TIF District, is located at the eastern edge of the Downtown Austin market area, and is primarily influenced by the economic base of the City of Austin, Travis County, and the Austin-Round Rock MSA. The Austin MSA is comprised of Bastrop, Caldwell, Hays, Travis and Williamson Counties. 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 19.8% in from 2010 through 2016 (U.S. Census estimates, July 1), and now has a population that exceeds 2 million people.

Austin is the county seat of Travis County, which grew by 17.08% from 2010 to 2016, according to the U.S. Census Bureau (July 1, 2016 estimate). 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 for Austin-Round Rock MSA

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 jobs and in 2003, the loss was 5,400. 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 chain expansions and business inventory additions resulted in a decrease in new job creation in the local economy, which diminished to (-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 2016, with an average increase of 38,650 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 9, 2018. The time frame for the proposed TIF extension is 2040, so the average rate of increase from the first ten years was extended to cover the remaining twelve years to 2040.

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

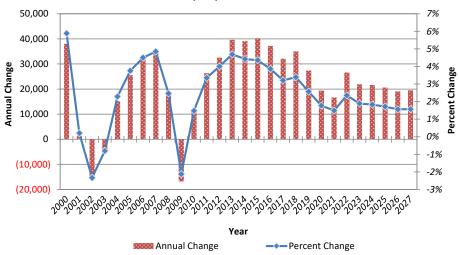
	Year	Total Wage & Salary Emp.	Annual Change	Percent Change
	2000	683,900	38,000	5.88%
	2001	685,300	1,400	0.20%
	2002	669,300	(16,000)	-2.33%
	2003	663,900	(5,400)	-0.81%
	2004	679,100	15,200	2.29%
	2005	704,600	25,500	3.75%
	2006	736,300	31,700	4.50%
	2007	772,000	35,700	4.85%
100	2008	791,000	19,000	2.46%
0 <i>L</i> IC	2009	774,200	(16,800)	-2.12%
HISTORICAL	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%
	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%
ctec	2022	1,157,600	26,600	2.35%
Projected	2023	1,179,500	21,900	1.89%
J	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	19,500	1.57%

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

Employment Growth



Austin MSA Housing Demand

Rapid population growth in Austin and other U.S. cities is almost always attributable to the immigration of people from other areas, often because of job opportunities. A recent (2018) U.S. News and World Report assessment of the largest metropolitan areas in the U.S. ranked Austin Number 1 in their list of best places to live. A major component of this ranking is the strength of the market for employment opportunities. The positive national exposure, combined with the demonstrable growth in employment (Table (1)), and an unemployment rate of 3.0% for the Austin MSA (February 2018) makes Austin an extremely desirable place for people to move. The City of Austin reported in 2016 that approximately 110 people per day are moving to the Austin area, and 45 people per day are moving into the City limits. Many of those people are moving to Austin in search of employment, and many of those people will seek out rental housing in apartments.

The table below provides an estimate of new rental units needed as a result of the job increases anticipated over the next ten years. Based on recent building permit data, we have estimated multi-family unit demand to be 96.84% of the total rental unit demand and will average 7,751 units per year from 2018 through 2027.

Table (2)

Multi-Family Housing Demand

Austin-Round Rock MSA

Year	MSA Employment Increase	Population Increase	Household Size	New Households	New Renter Households	Multi-Family Demand
2018	35,000	76,469	2.58	29,639	12,304	11,915
2019	27,400	59,865	2.58	23,203	9,632	9,327
2020	19,400	42,386	2.58	16,429	6,820	6,604
2021	16,600	36,268	2.58	14,057	5,835	5,651
2022	26,600	58,117	2.58	22,526	9,351	9,055
2023	21,900	47,848	2.58	18,546	7,698	7,455
2024	21,600	47,192	2.58	18,292	7,593	7,353
2025	20,600	45,008	2.58	17,445	7,241	7,013
2026	19,100	41,730	2.58	16,175	6,714	6,502
2027	19,500	42,604	2.58	16,513	6,855	6,638

Source: Employment Forecast from Table (1)

datasets_empgro_austin_2018.xls

Note: Population to employment ratio held constant (0.4577)

Household size (2.58) and 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%)

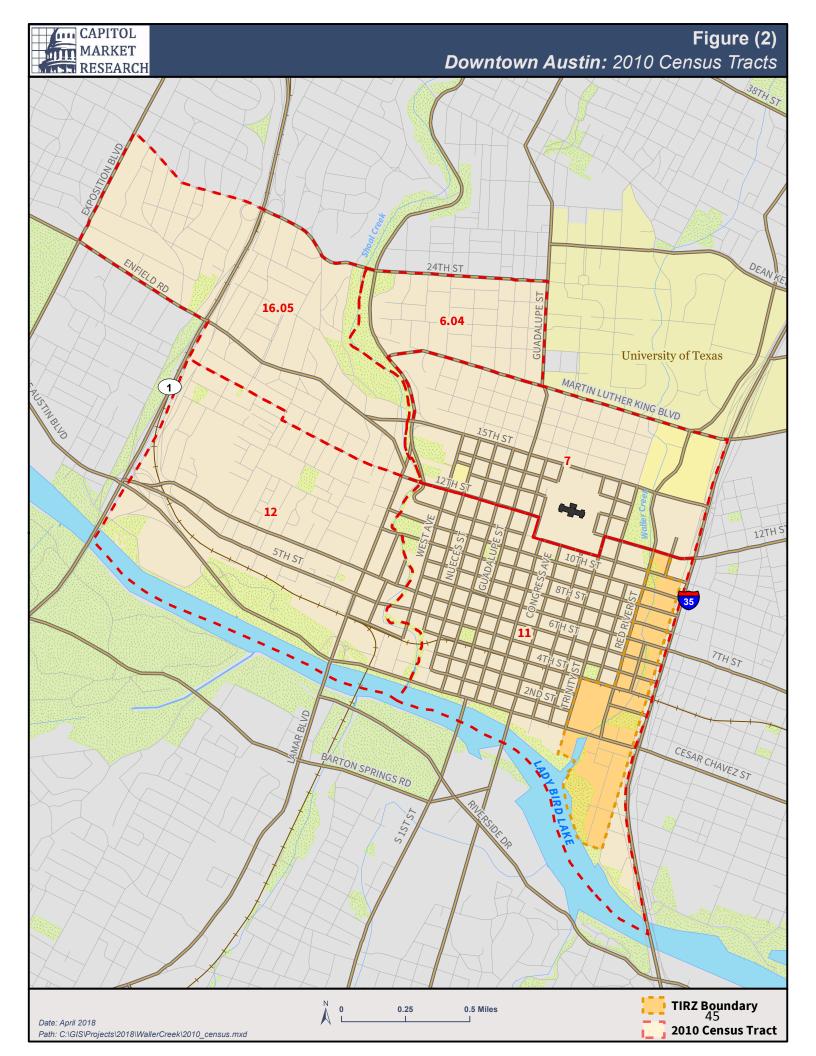
MARKET AREA DEFINITION & DEMOGRAPHIC ANALYSIS

Downtown Austin Market Area Definition

In order to accurately represent the demand for commercial and residential development at the subject site, regional demand must be disaggregated to the neighborhood or market area level. This process of disaggregation is often accomplished by segmenting a large geographic region into 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 Waller Creek TIF District is approximately 37 acres located at the eastern edge of downtown between Trinity Street and IH-35 in Downtown Austin, Texas. The market area defined for this project is most appropriately defined as the Downtown Austin market area, bounded generally by Lady Bird Lake to the south, Mopac to the west, 24th Street and MLK Jr Boulevard to the north, and Interstate 35 to the east. Land uses in the market area that are considered to be important include the CBD office buildings and the State Capital Complex, the new Seton Dell Medical Center, the Austin Convention Center, the developing Seaholm, Green Water and Second Street Districts, Lady Bird Lake and the adjacent hike and bike trail, nearby park land, the Sixth Street, Fourth Street and Rainey Street entertainment districts, apartment and condominium projects, and single family residential neighborhoods west of Lamar Boulevard.

Another important consideration for defining the market is image and market perceptions. This is often quite difficult to accomplish because one market may phase quietly into another without a clear physical or psychological barrier. In this case, the subject property is located in Downtown Austin, east of Trinity and west of IH-35, between 12th street on the north and Lady Bird Lake on the south, close to the University of Texas and the State Capital Complex. The definition of the market area must also take into consideration the availability of relevant information, particularly demographic data. Census tract 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. The Downtown Austin market area, shown on the map on the following page, is comprised of 2010 Travis County census tracts 6.04, 7, 11, 12, and 16.05.



DOWNTOWN AUSTIN OFFICE MARKET CONDITIONS

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. Then, 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 became much more competitive. Currently, the community is experiencing strong demand for office in both the CBD and the suburban market, with high occupancy and increasing rates across the region.

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, 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 completed in the CBD (500 W. 2nd, Shoal Creek Walk, and the UT Systems Building), Domain 8 (292,000 sq. ft.) in the Domain that was 100% preleased upon completion, and over 410,000 square feet in Southwest Austin, including two buildings (175,000 sq. ft.) that was preleased to YETI.

Table (3)
Austin Citywide Office Market Summary
(December 1991 - December 2017)

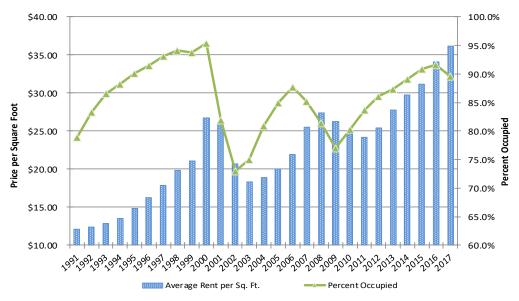
Year Net Rentable Area Total Leased Percent Occupied Additions (Sq.Ft.) Absorption (Net Sq.Ft.) Average Rent per Sq. Ft. 1991 21,010,788 16,592,251 79.0% 120,000 674,374 \$12.12 1992 20,783,333 17,312,282 83.3% 0 917,967 \$12.37 1993 20,979,552 18,174,152 86.6% 195,454 798,889 \$12.84 1994 21,237,702 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							
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 33,1	Year		Total Leased			•	•
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	1991	21,010,788	16,592,251	79.0%	120,000	674,374	\$12.12
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	1992	20,783,333	17,312,282	83.3%	0	917,967	\$12.37
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 <	1993	20,979,552	18,174,152	86.6%	195,454	798,889	\$12.84
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	1994	21,237,702	18,742,752	88.3%	0	695,813	\$13.54
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	1995	21,343,917	19,230,407	90.1%	33,000	352,263	\$14.85
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 <t< td=""><td>1996</td><td>22,351,191</td><td>20,461,948</td><td>91.5%</td><td>448,875</td><td>588,677</td><td>\$16.25</td></t<>	1996	22,351,191	20,461,948	91.5%	448,875	588,677	\$16.25
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	1997	23,564,021	21,952,889	93.2%	701,342	957,623	\$17.89
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 39,35	1998	24,659,563	23,206,121	94.1%	1,077,000	1,190,829	\$19.88
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 <td>1999</td> <td>26,841,892</td> <td>25,161,595</td> <td>93.7%</td> <td>2,239,516</td> <td>1,997,260</td> <td>\$21.11</td>	1999	26,841,892	25,161,595	93.7%	2,239,516	1,997,260	\$21.11
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	2000	28,524,537	27,213,822	95.4%	1,764,244	1,867,353	\$26.70
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 <t< td=""><td>2001</td><td>31,162,686</td><td>25,531,590</td><td>81.9%</td><td>2,520,265</td><td>(1,680,818)</td><td>\$26.05</td></t<>	2001	31,162,686	25,531,590	81.9%	2,520,265	(1,680,818)	\$26.05
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	2002	33,198,203	24,256,957	73.1%	1,617,984	(1,274,633)	\$20.71
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	2003	33,125,064	24,840,794	75.0%	83,843	583,837	\$18.35
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	2004	34,529,701	27,960,818	81.0%	605,686	1,572,164	\$18.88
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	2005	34,607,839	29,402,802	85.0%	0	912,552	\$20.08
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	2006	34,513,174	30,288,445	87.8%	0	965,954	\$21.96
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	2007	35,630,721	30,365,399	85.2%	1,398,077	145,122	\$25.47
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	2008	38,445,479	31,313,962	81.5%	2,373,710	484,876	\$27.41
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	2009	39,677,836	30,584,102	77.1%	976,999	(971,414)	\$26.31
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	2010	39,274,313	31,548,225	80.3%	88,694	964,123	\$24.68
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	2011	39,358,387	32,959,646	83.7%	0	1,361,946	\$24.19
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	2012	39,555,890	34,070,832	86.1%	62,192	1,072,575	\$25.41
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	2013	39,156,400	34,195,776	87.3%	101,444	485,059	\$27.74
2016 45,977,582 42,135,826 91.6% 1,632,342 1,833,694 \$34.05	2014	42,222,619	37,626,733	89.1%	1,274,569	1,851,291	\$29.78
7	2015	44,004,567	40,013,489	90.9%	1,768,664	2,365,751	\$31.18
<i>2017</i> 50,068,367 44,850,415 89.6% 1,684,323 627,153 \$36.13	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

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



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Downtown Austin Office Market Conditions

In December 2017, Capitol Market Research surveyed all 64 multi-tenant office buildings in the Austin CBD that together comprise a total of 10,165,393 square feet of rentable space. Currently, the market area occupancy, including sublease space, is 89.8%, which is down from June 2017 when it was 92.8%. Average rents are \$53.01 per square foot on a "gross" lease basis, up \$4.58 since June 2017 when they were \$48.43.

New Construction

Since 2010, twelve buildings with a total of 1,848,423 sq. ft. of rentable space have been added to the market area: 1705 Guadalupe (2015), 3Eleven Bowie (2015), 500 W. 2nd (2017), 501 Congress (2015), 5th+Colorado (2016), Colorado Tower (2014), IBC Bank Plaza (2014), Market District South Block (2013), Northshore (2016), Seaholm (2015), Shoal Creek Walk (2017), and the University of Texas System Building (2017). In addition, one new building that opened in 2009 (Shoppes at 5th & Lamar) delivered additional square footage in 2011.

Currently, there are two office buildings under construction in downtown Austin, which together will add 445,087 square feet to the market. One of these projects, Westview, is scheduled to open 100,087 square feet of renovated space in the second quarter of 2018, while the remaining building (Third+Shoal) is scheduled to open in October 2018. Both of these buildings will deliver class "A" space to the market area, and Third+Shoal is approximately 75% preleased. There are also several proposed projects that are considering office use as part of a mixed-use development or as a free-standing office building.

Occupancy & Absorption

The current (December 2017) "direct" occupancy in the market area is 92.4%, while the current total occupancy (including sublease space) is 89.8%. The slight dip in occupancy is due in part to a large amount of sublease space available (267,419 sq.ft.) and the addition of 741,509 square feet of multi-tenant office space in three buildings between June and December 2017.

Absorption in a tight market is usually driven by the completion of new space. However, from 1991 through 1999 the Downtown Austin market area experienced sustained absorption and rapidly rising rental rates with no new construction. Then, just as new buildings were started in 2001 and 2002, the market became soft and absorption turned negative. From 2000 through the end of 2005 (with the exception of 2004), the downtown market experienced negative absorption each year. Then from the beginning of 2006 through the end of 2008, the market made a remarkable recovery and absorbed a total of 755,863 sq. ft. before slowing down in 2009, as the national recession impacted Austin and downsizings had a negative effect on absorption. However, leasing activity picked up the following year, with 467,763 square feet absorbed in 2010 and 382,345 square feet absorbed in 2011 and 2012 combined. Absorption slowed again in 2013, due in part to the lack of available space. Then, from 2013 through the end of 2016, market demand accelerated as nine new office buildings have opened, with most of the space preleased before opening. In 2017, the absence of new space in the first six month created a negative absorption scenario, before three new building opened between June and December 2017. The last six months of 2017 saw 380,339 square feet

of space absorbed into the market area, with large amounts of space preleased in both 500 W. 2nd and Shoal Creek Walk.

Average Rents

Average rents in the Downtown Austin market area rose dramatically from \$15.17 per sq. ft. in December 1991 to \$31.81 per sq. ft. in December 2000, a 109.7% increase over a nine-year period. Since then, rents dropped back to \$21.33 per sq. ft. in December 2003, but have since moved up and are currently at \$53.01 per sq. ft. in December 2017.

New large, class "A" buildings (built since 2000) are leasing at rental rates higher than the market average (ranging from a gross average of \$32.88 to \$68.11 per square foot) while maintaining a higher than average occupancy (93.9% including sublease space). The rent disparity between the new Class A+ properties and smaller Class A and B buildings is a result of the willingness of certain tenants to pay a premium for high-quality, prestige and image. Other factors affecting Class A+ rates are the larger, more efficient floor plates in the new buildings and high parking ratios available in the attached garages. Because some tenants are willing to pay for quality, view, location, and amenities, and because there is a shortage of supply in these buildings, these landlords are able to obtain much higher rents.

Market Outlook

The continued increase in total occupancy has allowed average rental rates to increase, and the combination of high rents and increasing occupancy has resulted in the delivery of eleven class "A" properties since 2014, with an additional two buildings under construction. In addition to the multi-tenant space planned in the market area, several owner occupied office buildings have started in and around Downtown Austin, including Oracle just south of Lady Bird Lake and the SXSW building at 1400 Lavaca Street.

The leasing of large amounts of office space to Google at 500 W. 2nd and Cirrus Logic at Shoal Creek Walk, shows the increasing diversity of the downtown tenant mix, as tech and other "creative" companies look for well-located office space in Downtown Austin. Preleasing at the under construction Third+Shoal to Facebook and to Parsley Energy, at the recently announced 300 Colorado building, confirms the continuing attractiveness of Downtown Austin to large companies looking to maintain or expand their presence in a highly desirable location.

In the longer term, the continued expansi on of the Downtown Austin residential and retail development is likely to support increases in occupancy rates, and will attract a more varied tenant mix than the historically dominant law firms, lobbyists and financial institutions. There are also a limited number of sites on which to construct new buildings, as well as significant additional costs for downtown versus suburban buildings.

Table (4)
Office Market Summary
Downtown Austin

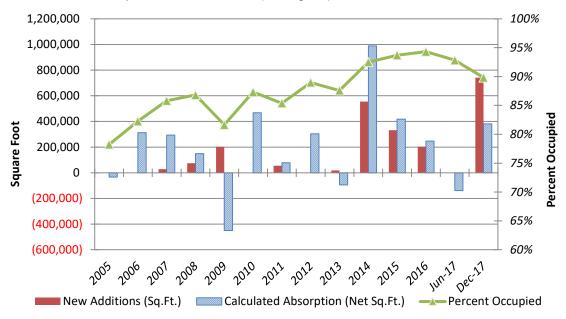
Year	Net Rentable Area	Total Leased	Percent Occupied	New Additions (Sq.Ft.)	Calculated Absorption (Net Sq.Ft.)	Average Rent per Sq. Ft.
2005	8,419,431	6,586,308	78.2%	0	(32,996)	\$21.78
2006	8,402,676	6,912,334	82.3%	0	312,769	\$25.75
2007	8,179,829	7,017,517	85.8%	27,939	294,017	\$29.39
2008	8,254,271	7,165,869	86.8%	75,000	149,077	\$31.78
2009	8,436,767	6,887,756	81.6%	202,000	(449,975)	\$32.92
2010	8,441,607	7,370,169	87.3%	0	467,763	\$33.32
2011	8,516,361	7,271,929	85.4%	54,684	78,299	\$32.34
2012	8,527,208	7,584,887	88.9%	0	304,046	\$35.33
2013	8,348,915	7,313,266	87.6%	17,540	(94,361)	\$38.06
2014	9,009,220	8,333,469	92.5%	555,097	988,652	\$41.02
2015	9,295,205	8,709,496	93.7%	331,685	417,652	\$43.90
2016	9,498,497	8,957,267	94.3%	202,592	247,771	\$46.81
Jun-17	9,498,497	8,818,113	92.8%	0	(139,154)	\$48.43
Dec-17	10,165,393	9,129,184	89.8%	741,509	380,339	\$53.01

Source: Capitol Market Research, Austin Area Office Survey, December 2005 - December 2017

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

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^{*} Sublease space included in all calculations (excluding 2000)



Inventory and Market Share

Since December 2000, the Downtown Austin office market has grown from 7,130,221 sq. ft. in 43 buildings to 10,165,393 sq. ft. in 67 buildings (December 2017). While construction of new buildings tends to come in "spurts", the annual increase to the Downtown market inventory has averaged approximately 168,621 sq. ft. since December 2000. The inventory share of the total Austin market has slowly decreased, from a high of 25.0% in 2000, to a low of 20.7% in December 2016 but increasing in 2017 to 21.3%, while maintaining an average of 22.4% over the past eighteen years. The decline in share reflects the rapid expansion of the suburban market, where buildings tend to be smaller, less expensive to build, and easier to get financed.

Table (5)
Office Inventory & Market Share
Downtown Austin

Year	Citywide	Market Area	Market	Change in			
Tear	Inventory	Inventory	Share	Share			
2000	28,524,537	7,130,221	25.0%	-1.7%			
2001	31,162,686	7,225,882	23.2%	-1.8%			
2002	33,198,203	7,631,101	23.0%	-0.2%			
2003	33,125,064	7,709,012	23.3%	0.3%			
2004	34,529,701	8,426,803	24.4%	1.1%			
2005	34,607,839	8,419,431	24.3%	-0.1%			
2006	34,513,174	8,402,676	24.3%	0.0%			
2007	35,630,721	8,179,829	23.0%	-1.4%			
2008	38,445,479	8,254,271	21.5%	-1.5%			
2009	39,677,836	8,436,767	21.3%	-0.2%			
2010	39,274,313	8,441,607	21.5%	0.2%			
2011	39,358,387	8,516,361	21.6%	0.1%			
2012	39,555,890	8,527,208	21.6%	-0.1%			
2013	39,156,400	8,348,915	21.3%	-0.2%			
2014	42,222,619	9,009,220	21.3%	0.0%			
2015	44,004,567	9,295,205	21.1%	-0.2%			
2016	45,977,582	9,498,497	20.7%	-0.5%			
2017	47,661,905	10,165,393	21.3%	0.7%			
Average 22.4%							

Source: Capitol Market Research, December 2000 - June 2017

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Historical Absorption

Absorption in the subject market area has fluctuated significantly over the years, but it has averaged approximately 21.0% of the annual citywide office space absorption since 2001, equating to an average annual absorption of 149,010 square feet a year between January 2001 and December 2017. In 2001, absorption was negative in the city and the Downtown market area as many e-commerce, start-up companies gave up their space. Then from 2004 through 2006, absorption picked up as the economy improved, and companies began to expand and needed more space. Then the world-wide financial crisis brought an end to corporate relocations and expansion and the office market suffered through the end of 2009. However, following the global financial crisis, the office market in the Downtown market area experienced increases in occupancy and positive absorption, which confirms the ongoing desirability of the market area.

The Downtown Austin market area has captured 23.1% (3,360,773 sq. ft.) of the citywide absorption from January 2003 through December 2017. This healthy amount of absorption in the Downtown market area can be attributed (in part) to the high level of pre-leasing activity seen in the market area, which is driven by the strong demand for space in the most desirable office market in the City.

Table (6)
Historical Office Absorption
Downtown Austin

Year	Citywide Absorption	Market Area Absorption	Market Share	
2001	(1,680,818)	(252,014)	15.0%	
2002	(1,274,633)	(145,676)	11.4%	
2003	583,837	(58,414)	-10.0%	
2004	1,572,164	531,691	33.8%	
2005	912,552	(32,996)	-3.6%	
2006	965,954	312,769	32.4%	
2007	145,122	294,017	202.6%	
2008	484,876	149,077	30.7%	
2009	(971,414)	(449,975)	46.3%	
2010	964,123	467,763	48.5%	
2011	1,361,946	78,299	5.7%	
2012	1,072,575	304,046	28.3%	
2013	485,059	(94,361)	-19.5%	
2014	1,851,291	988,652	53.4%	
2015	2,365,751	417,652	17.7%	
2016	1,833,694	247,771	13.5%	
2017	951,823	204,782	21.5%	
Total	13,491,255	2,836,715	21.0%	

Source: Capitol Market Research, December 2017

Citywide Office Market Surveys Dec. 2000 - June 2017 December 2017 is the average of (5) brokerage firms

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Downtown Austin Competitive Office Sites

In addition to the existing downtown buildings, office space built in the Waller Creek TIF District will be competing with other downtown office sites and new buildings 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.

The December 2017 survey conducted by Capitol Market Research for this evaluation revealed a total of twelve zoned sites that have buildings that are either under construction, have been "announced" or that might be developed as a competitive office space. One of the sites has just recently finished construction and two are currently under construction, with scheduled delivery dates ranging from March to October 2018. In addition there is 3,052,585 square feet of under construction and planned space, thus indicating the potential for competitive development within the proposed project development horizon. After interviewing developers and leasing agents, we have prepared a "pipeline" analysis for the subject market area that represents the best information available to us in December 2017.

Planned Multi-Tenant Office Buildings
Downtown Austin

Map No.	Name	Address	Developer Name	Size	Class	Status	Estimated Start	Estimated Completion
1	300 Colorado	300 Colorado Street	Riverside Resources	302,000	Α	Proposed	Dec-18	Dec-20
2	405 Colorado St	405 Colorado St	Brandywine	196,000	Α	Submitted	tbd	tbd
3	410 Uptown	410 W. 18th St	Mid-City Development	186,957	Α	Proposed	tbd	tbd
4	600 Guadalupe	600 Guadalupe St.	Lynd Development	570,000	Α	Submitted	Sep-18	Sep-21
5	Block 71	200 W. 6th St.	Trammell Crow	665,000	Α	Submitted	tbd	tbd
6	Block 87	701 Trinity St.	Cielo Property Group	182,328	Α	Submitted	tbd	tbd
7	Courthouse Block	308 Guadalupe Street	Lincoln Property Group	600,000	Α	Proposed	tbd	tbd
8	Rainey Gateway	84 Rainey St.	Sackman Development	50,000	Α	Submitted	tbd	tbd
9	Shoal Creek Walk	835 W. 6th Street	Schlosser	212,500	Α	Complete	Jun-16	Nov-17
10	Third+Shoal	208 Nueces St.	Cielo Property Group	345,000	Α	Construction	May-16	Oct-18
11	Waller Center	Red River & Cesar Chavez	McCourt/Hines	300,000	Α	Approved	on	hold
12	Westview (rehab)	316 W. 12th St.	Lincoln Property Group	100,087	Α	Construction	Sep-16	Mar-18
	Total			3,709,872				

Source: Capitol Market Research, Developer Interviews, April 2018

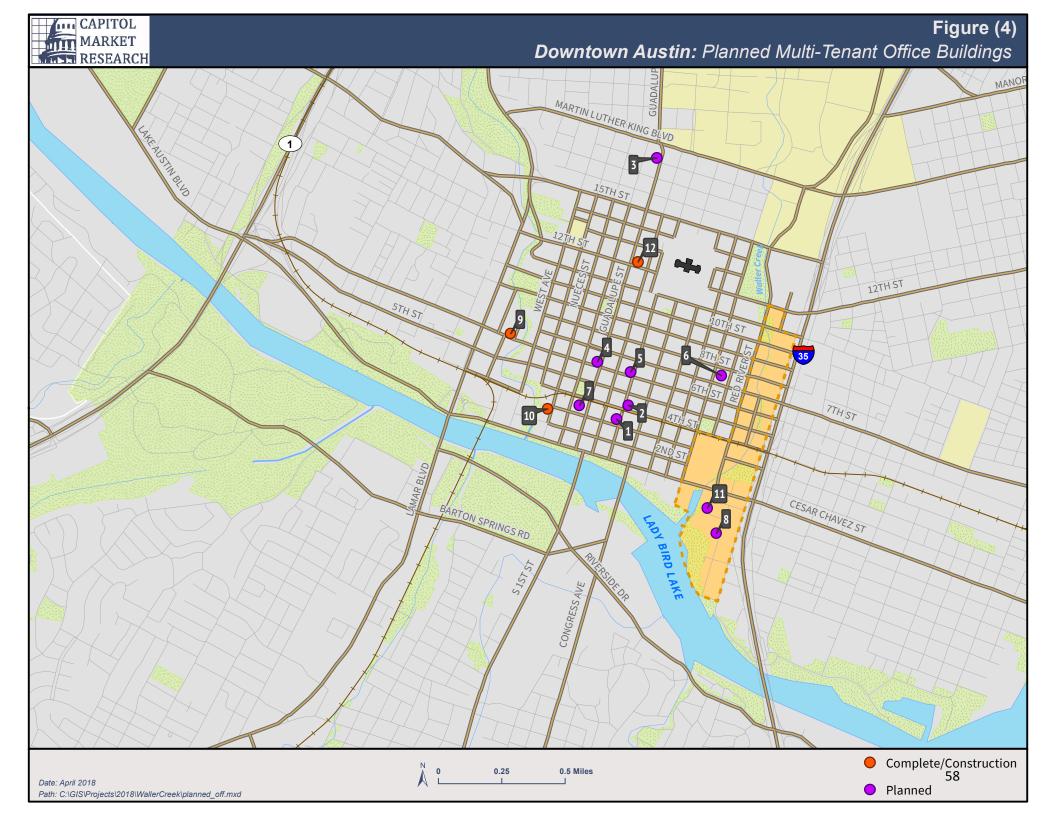
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Table (8)
Future Office Building Delivery
Downtown Austin

Map No.	Name	Sq.Ft.	2017	2018	2019	2020	2021	Future
1	300 Colorado	302,000				302,000		
2	405 Colorado St	196,000						196,000
3	410 Uptown	186,957						186,957
4	600 Guadalupe	570,000					570,000	
5	Block 71	665,000						665,000
6	Block 87	182,328						182,328
7	Courthouse Block	600,000						600,000
8	Rainey Gateway	50,000						50,000
9	Shoal Creek Walk	212,500	212,500					
10	Third+Shoal	345,000		345,000				
11	Waller Center	300,000						300,000
12	Westview (rehab)	100,087		100,087				
	Total Sq. Ft.	3,709,872	212,500	445,087	0	302,000	570,000	2,180,285

Source: Capitol Market Research, Developer Interviews, April 2018

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Office Space Demand

Total employment in the Austin area is expected to grow by more than 21.9% in the next 10 years with professional and business services accounting for 26.7% of the increase, followed by leisure and hospitality with 16.1% and education and health services with 13.9%. Due to the evolving nature of the industry mix, in order to accurately reflect the number of office jobs created, it is important to examine the types of jobs being created by occupational category. Office type occupations are broadly defined as all white-collar occupations minus the category of sales workers. Included in this classification are most professional, managerial and clerical categories as defined by the US Bureau of Census. There are, however, a number of occupations that do not occupy office space and must therefore be deleted to accurately reflect the demand for office space. Among the deleted categories are artists, musicians, pharmacists and elementary school teachers. Other categories may be partially deleted based on empirical evidence and judgment based on local market knowledge.

Once the number of office jobs by industry group has been determined, it is then necessary to estimate the number of jobs that are located in office buildings rather than in industrial warehouse space or in an office attached to a manufacturing facility. This is accomplished by developing a matrix of office occupations by major industry group and including only those jobs that are likely to be located in freestanding office buildings.

The final step is determining the proportion of office demand that is likely to be absorbed in multi-tenant office buildings. In recent years a significant percentage of office demand has been accommodated in build-to-suit office buildings like State Farm Insurance (on RM 620), Austin Cable Vision and National Instruments (north MoPac) and GSD&M and Whole Foods (located downtown). It is likely that this trend will shift toward the multi-tenant market 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, approximately 67% of all large office buildings are leased.

As a part of this office study, Capitol Market Research obtained from the Texas Workforce Commission an occupational breakdown of workers for each major industry group. CMR staff then reviewed each occupational category and assigned it an office percentage based on the likely location of the worker within each industry class. The results of this classification analysis indicate that currently 41.7% of all workers in the Austin area are located in office space, however, the estimates by industry group range from a low of 4% in Hospitality to 100% in Finance.

By using the employment forecast shown in Table (1) and calculating office employment through 2025, office employment is expected to increase by approximately 133,026 workers between 2015 and 2025. Assuming an average ratio of 225 sq. ft. per employee, this employment increase should result in a demand for 29.9 million sq. ft. of office space or an average of about 2.4 million square feet annually from 2015 to 2025. After a majority of the existing vacant space is absorbed, absorption will occur in new

buildings that will be a mix of private and public, owner occupied buildings and multi-tenant lease space, with the multi-tenant space accounting for approximately 67% of the total, shown in Table (9) below.

Table (9)

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
2028	1,285,173	40.8%	524,554	9,141	2,056,681	1,377,976
2029	1,311,058	40.7%	533,854	9,300	2,092,485	1,401,965
2030	1,337,464	40.6%	543,316	9,462	2,128,897	1,426,361
2031	1,364,401	40.5%	552,942	9,626	2,165,926	1,451,171
2032	1,391,881	40.4%	562,736	9,794	2,203,584	1,476,401
2033	1,419,915	40.3%	572,700	9,964	2,241,880	1,502,059
2034	1,448,513	40.2%	582,837	10,137	2,280,824	1,528,152
2035	1,477,687	40.1%	593,150	10,313	2,320,428	1,554,687
2036	1,507,449	40.0%	603,642	10,492	2,360,702	1,581,671
2037	1,537,810	39.9%	614,316	10,674	2,401,657	1,609,110
2038	1,568,783	39.9%	625,175	10,859	2,443,305	1,637,014
2039	1,600,380	39.8%	636,223	11,047	2,485,655	1,665,389
2040	1,632,613	39.7%	647,461	11,239	2,528,721	1,694,243
Total				215,037	48,383,372	32,416,859

Source: Employment Forecast from Table (1)

empgro_Austin_2018.xls

Note: Office Employment is estimated to range from 42.0% 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

Market Area and Subject Absorption Forecast

Since 2010, the office market in the Downtown Austin market area has experienced a dramatic improvement from the negative absorption and stagnant rent growth experienced because of the economic downturn in 2009. The recession effectively curtailed any short term plans for development, but the market is now experiencing a dramatic resurgence, with over 1.8 million square feet of Class "A" office delivered in the past five years, and 445,087 currently under construction.

The downtown market is currently 89.8% occupied, and as noted earlier there are very few large blocks of space available for lease. Due to the continued high occupancy rates, most of the future absorption will take place in buildings that are planned for completion over the next few years. CMR has estimated that a proportionate share of absorption will take place in the Downtown Austin market area from 2018 through 2040 based on the 21.0% of the historical capture rate experienced in the market area from 2000 through 2017. Based on these assumptions, and the planned site inventory and future construction schedule previously discussed, an absorption and occupancy forecast was developed and is shown in Table (10) on the following page.

Table (10)
Office Absorption and Occupancy Forecast
Downtown Austin

Year	Net Rentable	Additions	Sq.Ft	Percent	Absorption
	Area	(Sq.Ft.)	Available	Occupied	(Sq.Ft.)
2005	8,419,431	0	1,833,123	78.2%	(32,996)
2006	8,402,676	0	1,490,342	82.3%	312,769
2007	8,179,829	27,939	1,162,312	85.8%	294,017
2008	8,254,271	75,000	1,088,402	86.8%	149,077
2009	8,436,767	202,000	1,549,011	81.6%	(449,975)
2010	8,441,607	0	1,071,438	87.3%	467,763
2011	8,516,361	54,684	1,244,432	85.4%	78,299
2012	8,527,208	0	942,321	88.9%	304,046
2013	8,348,915	17,540	1,035,649	87.6%	(94,361)
2014	9,009,220	555,097	675,751	92.5%	988,652
2015	9,295,205	331,685	585,709	93.7%	417,652
2016	9,498,497	202,592	541,230	94.3%	247,771
2017	10,165,393	741,509	1,036,209	89.8%	380,339
2018	10,610,480	445,087	1,103,885	89.6%	377,411
2019	10,610,480	0	801,165	92.4%	302,720
2020	10,912,480	302,000	591,400	94.6%	511,765
2021	11,482,480	570,000	982,390	91.4%	179,010
2022	11,482,480	0	669,385	94.2%	313,005
2023	11,743,480	261,000	669,677	94.3%	260,708
2024	12,005,480	262,000	669,281	94.4%	262,396
2025	12,256,480	251,000	669,290	94.5%	250,991
2026	12,493,480	237,000	669,377	94.6%	236,913
2027	12,731,480	238,000	669,764	94.7%	237,612
2028	13,021,480	290,000	670,026	94.9%	289,738
2029	13,316,480	295,000	670,245	95.0%	294,782
2030	13,616,480	300,000	670,334	95.1%	299,911
2031	13,921,480	305,000	670,206	95.2%	305,128
2032	14,231,480	310,000	669,773	95.3%	310,433
2033	14,547,480	316,000	669,945	95.4%	315,828
2034	14,868,480	321,000	669,631	95.5%	321,314
2035	15,195,480	327,000	669,737	95.6%	326,894
2036	15,528,480	333,000	670,170	95.7%	332,567
2037	15,866,480	338,000	669,833	95.8%	338,337
2038	16,210,480	344,000	669,629	95.9%	344,204
2039	16,560,480	350,000	669,459	96.0%	350,170
2040	16,916,480	356,000	669,222	96.0%	356,237

Source: Capitol Market Research, April 2018

offsum_cbd_2018.xls

 $Additions \ to \ inventory \ in \ 2018-2022 \ are \ based \ on \ the \ delivery \ of \ buildings \ currently \ under \ construction \ or \ planned \ with \ a \ definitive \ delivery \ date.$

The office space additions shown for 2023 - 2040 above are assumed to approximately equal absorption

Waller Parks District Office Absorption

The previous sections have discussed the regional office market and the growth statistics related to the office market in Downtown Austin. The data shows that the CBD continues to be competitive in the regional office context and has maintained a healthy share of new office construction and absorption while also commanding the highest average rental rates in the city. As discussed earlier, the success of the downtown in a regional context is largely due to the rich mix of land uses in close proximity and the walkable character of the downtown district. The continuing success of the downtown market is also dependent upon the availability of vacant land, and the redevelopment of underutilized parcels.

In 2010, the City of Austin completed the Austin Downtown Master Plan which outlined a vision for the CBD that included a proposed land use plan for sub districts within the CBD. As part of the future land use plan, the master plan consultants identified "opportunity sites." These opportunity sites were either vacant (in 2010) or have low density improvements which do not reflect the highest and best use of the property. Current CBD zoning allows an 8:1 FAR unless the site is within an historic district (like West 6th Street) or is within a protected Capital View Corridor (CVC). On some sites the owner has achieved a higher density "bonus" that increased the FAR. Taking the FAR constraints into consideration, the Master Plan consultants identified the potential for adding approximately 37.2 million square feet of additional building net rentable space in the CBD. Within the existing Waller Creek TIF boundary, the consultants identified opportunity for development of approximately 9.4 million square feet of new development.

In 2017, Nelsen Nygaard completed the Downtown Austin Parking Stratgey Plan for the Downtown Austin Alliance. Part of the plan included an opportunity site assessment (update) which was completed by McCann Adams Studio. The site assessment shows a total of 37.8 million square feet of development opportunity, which assumes that all sites are built to their maximum F.A.R., including a density bonus. Within the Waller Parks District there is a potential to develop 8.6 million square feet of development (with the bonus), which is 22.73% of the total development potential in the CBD.

A preliminary estimate of the office absorption potential for the Waller Creek TIF was calculated for the existing TIF district using the proportional share of the downtown development potential (22.73%) combined with an estimate of the "competitive" share. This competitive share reflects the change in character likely to occur as a result of the implementation of the planned Waller Creek masterplan and significant Creekside improvements. The "blended" capture rate is the average of the proportional and competitive share. This absorption forecast is shown on Table (11) on the following page.

Table (11)
Office Space Absorption Forecast
Downtown Austin and the Waller Parks District

			Market Area			Wal	ller Parks Dis	strict	
Year	Citywide Absorption	CBD Market %	(CBD) Absorption	Market Area Additions	Proportional	Competitive Capture Rate	Blended Rate	Absorption Potential in WPD	Cummulative Potential Absorption
2018	1,794,945	21.0%	377,411	445,087	22.7%	22.7%	22.7%	85,786	85,786
2019	1,439,718	21.0%	302,720	0	22.7%	23.3%	23.0%	69,652	155,438
2020	997,632	21.0%	209,765	302,000	22.7%	23.8%	23.3%	48,850	204,287
2021	851,363	21.0%	179,010	570,000	22.7%	24.4%	23.6%	42,187	246,474
2022	1,488,634	21.0%	313,005	0	22.7%	25.0%	23.8%	74,637	321,112
2023	1,239,910	21.0%	260,708	261,000	22.7%	25.5%	24.1%	62,894	384,005
2024	1,247,942	21.0%	262,396	262,000	22.7%	26.1%	24.4%	64,033	448,039
2025	1,193,699	21.0%	250,991	251,000	22.7%	26.6%	24.7%	61,950	509,988
2026	1,126,745	21.0%	236,913	237,000	22.7%	27.2%	25.0%	59,136	569,124
2027	1,130,071	21.0%	237,612	238,000	22.7%	27.7%	25.2%	59,973	629,097
2028	1,377,976	21.0%	289,738	290,000	22.7%	28.3%	25.5%	73,937	703,034
2029	1,401,965	21.0%	294,782	295,000	22.7%	28.9%	25.8%	76,046	779,080
2030	1,426,361	21.0%	299,911	300,000	22.7%	29.4%	26.1%	78,206	857,286
2031	1,451,171	21.0%	305,128	305,000	22.7%	30.0%	26.4%	80,417	937,703
2032	1,476,401	21.0%	310,433	310,000	22.7%	30.5%	26.6%	82,681	1,020,384
2033	1,502,059	21.0%	315,828	316,000	22.7%	31.1%	26.9%	84,999	1,105,383
2034	1,528,152	21.0%	321,314	321,000	22.7%	31.7%	27.2%	87,371	1,192,754
2035	1,554,687	21.0%	326,894	327,000	22.7%	32.2%	27.5%	89,800	1,282,554
2036	1,581,671	21.0%	332,567	333,000	22.7%	32.8%	27.7%	92,286	1,374,840
2037	1,609,110	21.0%	338,337	338,000	22.7%	33.3%	28.0%	94,830	1,469,670
2038	1,637,014	21.0%	344,204	344,000	22.7%	33.9%	28.3%	97,435	1,567,105
2039	1,665,389	21.0%	350,170	350,000	22.7%	34.4%	28.6%	100,100	1,667,205
2040	1,694,243	21.0%	356,237	356,000	22.7%	35.0%	28.9%	102,828	1,770,033
Total			6,816,074	6,751,087			26.0%	1,770,033	

Source:Capitol Market Research, April 2018

offsum_cbd_2018.xl

 $Capture\ rate\ based\ (in\ part)\ on\ Waller\ Creek\ potential\ development\ of\ opportunity\ sites\ as\ a\ percentage\ of\ the\ total\ CBD$

DOWNTOWN AUSTIN APARTMENT MARKET CONDITIONS

Apartment Market Trends in the Austin MSA

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 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

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

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 (12), 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 (12)

Austin Citywide Apartment Summary

December 1991 - December 2017

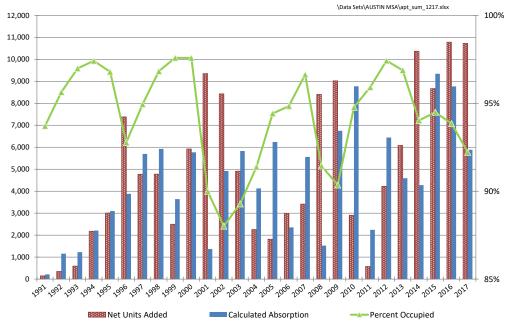
Year	Total Units	Occupied Units	Percent Occupied	Net Units Added	Calculated Absorption	Rent per Sq.Ft.
1991	61,113	57,266	93.7%	148	220	\$0.57
1992	61,118	58,448	95.6%	348	1,160	\$0.64
1993	63,074	61,174	97.0%	594	1,229	\$0.71
1994	66,379	64,662	97.4%	2,178	2,212	\$0.75
1995	69,324	67,101	96.8%	3,010	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: Capitol 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



Downtown Austin Multi-Family Housing Market Conditions

Overview

In December 2017, Capitol Market Research surveyed 23 active (open and leasing) apartment communities in the Downtown Austin market area, with a total of 4,988 units and a current occupancy rate of 93.0%, including the successful lease-up of two new properties, Millennium Rainey and Northshore. Average rents have dropped slightly to \$2.46, a \$0.02 decrease since December 2016. Unlike some larger and more mature cities, the downtown area in Austin has only emerged recently as a distinct submarket, since 4,829 (96.8%) of the 4,988 total units have been completed since the beginning of 2000. An historical summary of the market area inventory, occupancy, and rents is shown on Table (13) on the following page.

New Construction Trends

The Downtown Austin market area is composed of three distinct structure types: high rise, mid-rise wrap/podium and garden style walk-up. New multi-family construction has increased dramatically in the Downtown market area since 2000 when only a handful of older properties existed. The transition from garden style walk-up with surface parking to mid-rise product (with elevators and structured parking) started in the early 2000s with Gables West Avenue, which was completed in 2001. The transition from mid-rise to tower construction began with AMLI Downtown (2004). Since that time, the density of the multi-family projects downtown has increased, and now the majority of new projects completed and planned are high-rise towers. The multi-family market in Downtown Austin has seen a substantial increase in interest from renters seeking a more "urban" lifestyle in a low maintenance residence with easy access to employment and entertainment opportunities in and around the area. The market has responded to renter needs, and currently there are a wide variety of product types in the downtown area.

New construction in Downtown Austin has been very active, with ten new projects completed since the beginning of 2010. Seven of these ten projects are high-rise towers, which offer very high grade finishes and extensive project amenities which justify a higher than average rent. Within the market area, there are twelve apartment towers with a total of 3,318 rentable units. The average rent among the towers has increased from \$1.76 in 2004 to \$2.21 in 2007, with current rates of \$2.64 per square foot. Occupancy rates impacted by new deliveries range from a low of 60.7% in 2004, when the first new tower opened, to a high of 98.2% in 2007. Currently, the high rise towers in the market area have an occupancy rate of 93.2%, including the stabilization of Northshore, the newest apartment tower.

The two most recently completed projects are Northshore, a class "A+" high rise which is a part of the Green Water Development, and Millennium Rainey, a "new urbanist" midrise wrap located in the Rainey Street District. The two newest high rise properties (The Bowie, Northshore) are currently leasing at the highest rates in the market area, at \$3.22 and \$2.98 per square foot, respectively. There are only two properties currently under construction in Downtown Austin, although one additional property, Rise on 8th, was recently completed, but converted to a "time-share" hotel. Gables Republic Square, a Hotel ZaZa with 195 apartment units above, is scheduled for delivery in March 2019, and 1301 W. 5th Street is a midrise property that just recently started construction and should also deliver units in March 2019.

Table (13)

Apartment Market Summary

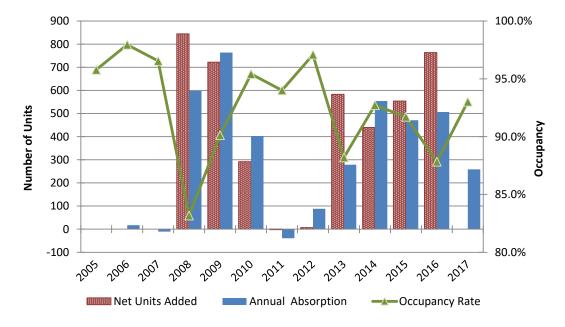
Downtown Austin

Year	Number of	Units	Occupancy	Net Units	Annual	Rent per Sq.		
	Units	Occupied	Rate	Added	Absorption	Ft.		
2005	783	750	95.8%			\$1.57		
2006	783	767	98.0%	0	17	\$1.81		
2007	783	756	96.6%	0	(11)	\$1.93		
2008	1,628	1,354	83.2%	845	598	\$1.86		
2009	2,350	2,118	90.1%	722	764	\$1.88		
2010	2,642	2,521	95.4%	292	403	\$2.05		
2011	2,640	2,482	94.0%	(2)	(39)	\$2.06		
2012	2,647	2,570	97.1%	7	88	\$2.29		
2013	3,230	2,849	88.2%	583	279	\$2.39		
2014	3,670	3,403	92.7%	440	554	\$2.44		
2015	4,224	3,874	91.7%	554	471	\$2.57		
2016	4,988	4,381	87.8%	764	507	\$2.48		
2017	4,988	4,640	93.0%	0	259	\$2.46		
Course Constant Manufact Beauty December 2005 December 2017								

Source: Capitol Market Research December 2005 - December 2017

Note: Includes Affordable Housing & Student Housing in market area

histocc.xls



Rental Rates

Average rents in Downtown Austin are currently (December 2017) \$2.46 per square foot, which is down from the high of \$2.60 achieved in June 2016. Within downtown, there are three distinct product types, traditional garden style (walk up) communities, mid-rise product with elevators and adjacent (or "wrapped") structured parking garages, and high rise towers built above (or adjacent to) a parking garage. While the market average is \$2.46, the high rise towers average \$2.63 per square foot, mid-rise projects average \$2.07 per square foot, while the garden style apartments average \$1.84 per square foot.

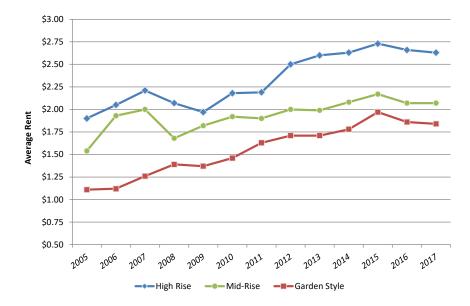
The Downtown Austin market area has consistently had rental rates almost double the rate of the Austin MSA, because of the confirmed and continuing desirability to reside in a live/work/play environment. Both the Downtown Austin market area and the Austin MSA average rents have increased since 2009, when the Downtown market area was \$1.88 and the MSA was \$0.93 per square foot. Overall, citywide rental rates achieved an average annual increase of 3.06% between 2005 and 2015, while the Downtown Austin market area averaged a 4.82% annual increase.

Table (14)
Average Rent by Building Type
Downtown Austin

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
High Rise	ligh Rise												
Rentable Units	221	221	221	798	1,196	1,488	1,486	1,493	2,076	2,302	2,880	3,318	3,318
Average Rent	\$1.90	\$2.05	\$2.21	\$2.07	\$1.97	\$2.18	\$2.19	\$2.50	\$2.60	\$2.63	\$2.73	\$2.66	\$2.63
Mid-Rise													
Rentable Units	379	379	379	647	971	971	971	971	971	1,185	1,185	1,511	1,511
Average Rent	\$1.54	\$1.93	\$2.00	\$1.68	\$1.82	\$1.92	\$1.90	\$2.00	\$1.99	\$2.08	\$2.17	\$2.07	\$2.07
Garden Style													
Rentable Units	183	183	183	183	183	183	183	183	183	183	159	159	159
Average Rent	\$1.11	\$1.12	\$1.26	\$1.39	\$1.37	\$1.46	\$1.63	\$1.71	\$1.71	\$1.78	\$1.97	\$1.86	\$1.84
Total/Averages	Total/Averages												
Rentable Units	783	783	783	1,628	2,350	2,642	2,640	2,647	3,230	3,670	4,224	4,988	4,988
Average Rent	\$1.57	\$1.81	\$1.93	\$1.86	\$1.88	\$2.05	\$2.06	\$2.29	\$2.39	\$2.44	\$2.57	\$2.48	\$2.46

Prepared by Capitol Market Research, December 2017

rent_occ.xls



Project Absorption and Lease-Up Rates

The Downtown Austin market area currently has seven recently completed market rate properties that have stabilized, and one additional market rate tower just south of the river (The Catherine) included. These eight total properties had a "weighted" average lease-up rate of 19.92 units per month when they were in lease up, ranging from a high of 25.74 units at Seven to a low of 12.47 units per month at The Bowie. Table (15) below shows the initial lease-up rates at the seven new market rate towers in the market area, one mid-rise property in the Rainey Street District, and one additional tower just south of the market area.

Table (15)
Lease-Up Rates in New Communties
Downtown Austin

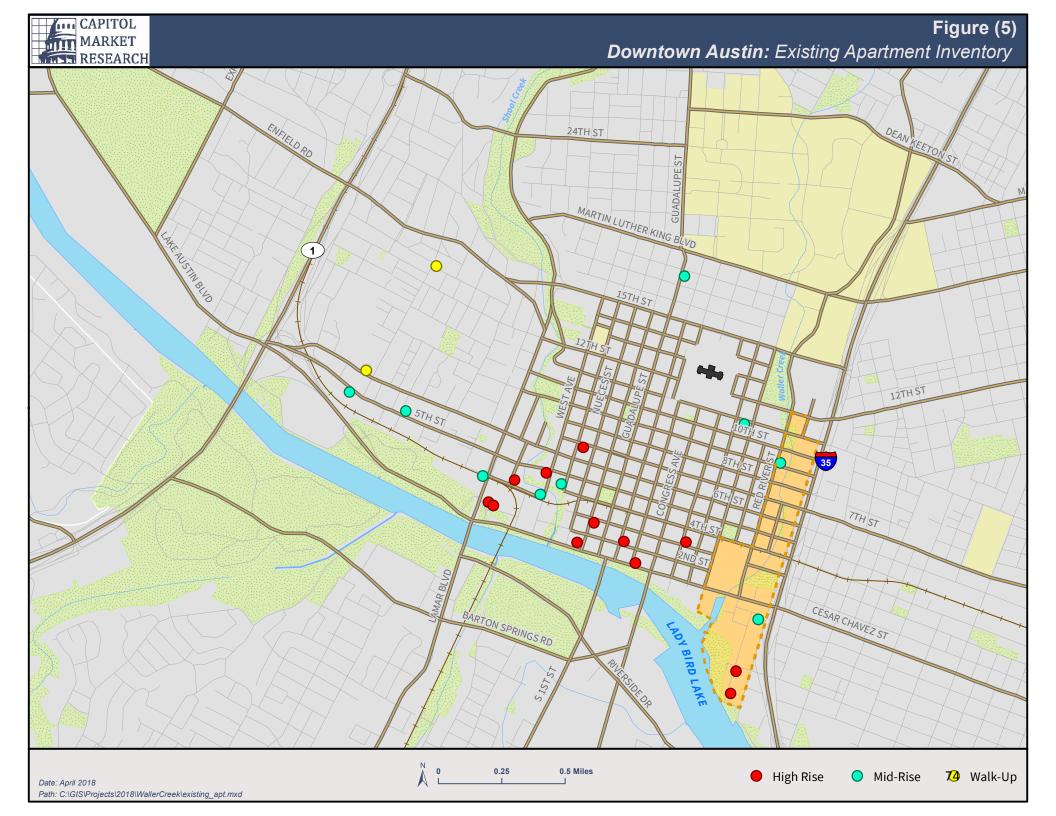
Property	Planned Units	Completed Units	Open Date	Stabilized Date	Units Occupied (at Stabilization)	Occupancy Rate (Stabilized)	Units/Month Leased
Stabilized Properties							
Whitley	266	266	Feb-13	Nov-13	239	90.0%	25.37
Skyhouse	321	321	Dec-13	May-15	289	90.0%	16.90
Gables Park Tower	223	223	Jan-14	Nov-14	201	90.0%	20.08
The Catherine	300	300	Jan-15	May-16	270	90.0%	17.66
Seven	220	220	Apr-15	Nov-15	198	90.0%	25.74
The Bowie	357	357	Jan-15	Mar-17	321	90.0%	12.47
Northshore	439	439	Mar-16	Jul-17	395	90.0%	25.57
Millennium Rainey	326	326	Jun-16	Nov-17	293	90.0%	17.10
Stabilized Subtotal	2,452	2,452			2,207	90.0%	19.93

Source: Capitol Market Research Apartment Survey, December 2017

absorption.xls

 $[\]textit{NOTE: The average monthly lease up rate is a weighted average, based on open data and occupied units} \\$

^{*}The Catherine is not included in the apartment market summary, since it is south of Lady Bird Lake and not considered part of the CBD



Downtown Austin Demographic Trends

The defined Downtown Austin market area has experienced significant population and household growth since 2000 when the area had 13,601 people living in 7,874 households. Total population in the subject area census tracts grew from 15,968 in 2000 to 22,491 in 2013, an increase of 40.9%. See Table (16) below.

Table (16)
Population and Household Trends
Downtown Austin

	2000	2010	2014	Annual Change (2000 - 2014)
Population	15,968	20,926	22,491	2.48%
Households	7,874	10,360	10,763	2.26%
Population in Households	13,601	17,448	19,487	2.60%
Average HH Size	1.73	1.68	1.81	0.34%
Owner Households	2,212	3,061	3,324	2.95%
Percent Owner	28.09%	29.55%	30.88%	0.68%

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, March 2018

Downtown Austin Population and Household Forecast

According to the U.S. Census Bureau, the Downtown Austin market area contained 1.22% of the population of the Austin MSA in 2010. The population and household forecast, shown in Table (17) below, uses the capture rate (percent of growth in the MSA) for the market area to estimate future household growth, along with the household size based on the change from the US Census 2000 to 2010. The capture rate, rising from 1.76% in 2018 to 2.36% in 2030 and 2.58% in 2040, is based on the population forecasts in the CAMPO (Capital Area Metropolitan Planning Organization) Regional Transporation Plan. The Downtown Austin market area is projected to add 1,116 average households per year from 2018 through 2040.

Table (17)
Population and Household Forecast
Dowtown Austin

	Forecasted MSA			MAI	RKET AREA	FORECAST		
Year	Population Growth	Capture Rate	New Population	Household Size	New HH	% of Housing Stock Lost	Housing Stock Turnover	Net HH Increase
2010		1.06%		1.68				
2011	51,400	1.15%	591	1.68	351	0.50%	54	405
2012	53,255	1.24%	658	1.68	392	0.50%	56	447
2013	54,924	1.32%	727	1.68	433	0.50%	58	490
2014	56,562	1.41%	797	1.68	475	0.50%	60	535
2015	58,007	1.50%	868	1.68	518	0.50%	63	580
2016	60,282	1.58%	954	1.68	570	0.50%	65	635
2017	61,453	1.67%	1,026	1.67	613	0.50%	69	682
2018	63,675	1.76%	1,119	1.67	669	0.50%	72	741
2019	64,869	1.84%	1,196	1.67	716	0.50%	75	791
2020	66,141	1.93%	1,277	1.67	765	0.50%	79	844
2021	66,847	1.97%	1,319	1.67	791	0.50%	83	874
2022	68,232	2.02%	1,376	1.67	826	0.50%	87	913
2023	69,063	2.06%	1,423	1.67	854	0.50%	92	946
2024	70,610	2.10%	1,485	1.66	893	0.50%	96	989
2025	72,006	2.15%	1,546	1.66	930	0.50%	101	1,031
2026	73,035	2.19%	1,600	1.66	963	0.50%	106	1,069
2027	74,590	2.23%	1,666	1.66	1,004	0.50%	111	1,115
2028	76,456	2.28%	1,741	1.66	1,050	0.50%	116	1,166
2029	77,901	2.32%	1,808	1.66	1,091	0.50%	121	1,213
2030	79,950	2.36%	1,890	1.66	1,142	0.50%	127	1,269
2031	81,602	2.39%	1,947	1.65	1,177	0.50%	133	1,310
2032	83,862	2.41%	2,019	1.65	1,222	0.50%	139	1,361
2033	86,170	2.43%	2,093	1.65	1,268	0.50%	145	1,413
2034	88,256	2.45%	2,163	1.65	1,311	0.50%	152	1,463
2035	90,833	2.47%	2,246	1.65	1,363	0.50%	159	1,522
2036	93,048	2.49%	2,321	1.65	1,410	0.50%	166	1,575
2037	96,052	2.52%	2,416	1.64	1,469	0.50%	173	1,642
2038	98,741	2.54%	2,505	1.64	1,524	0.50%	181	1,705
2039	101,717	2.56%	2,603	1.64	1,585	0.50%	189	1,774
2040	104,489	2.58%	2,697	1.64	1,644	0.50%	197	1,841

Prepared by: Capitol Market Research, March 2018

demcalc_cbd_2018.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 2010, and the CAMPO 2040 forecasts for the market area. Household size based on US 2010 Census. % of housing stock lost from Pickin & Meyer, 2008.

Downtown Austin Multi-family Demand Forecast

In order to determine the multi-family housing demand in the primary market area (PMA), CMR used the Population and Household Forecast, shown previosuly in Table (17), to estimate total multi-family unit demand. It is assumed that the renter housing tenure will continue to be similar to the 2010 US Census numbers. The percentage multi-family is normally calculated from new building permits issued over the past ten years in the MSA (Texas A&M Real Estate Data Center), which has been 94.2% of rental housing. However, due to the high-density urban character of Downtown Austin, and the resulting high cost of land and the lack of large available tracts of land, there are no for rent townhomes or duplexes being built in the market area. Because of this, CMR has estimated that the percentage multi-family of new rental demand is 100%. Using these estimates, the forecasted new multi-family housing demand from population growth will average 824 units per year from 2016 through 2040, as shown in Table (18) below.

Table (18)

Multi-Family Unit Demand

Downtown Austin

	Net HH		MARKET ARE	A FORECAST	
Year	Increase	% Renter	New Renter HH	% Multi- Family	Final Demand
2018	741	68.45%	507	100.00%	507
2019	791	68.28%	540	100.00%	540
2020	844	68.11%	575	100.00%	575
2021	874	67.95%	594	100.00%	594
2022	913	67.78%	619	100.00%	619
2023	946	67.61%	640	100.00%	640
2024	989	67.44%	667	100.00%	667
2025	1,031	67.28%	693	100.00%	693
2026	1,069	67.11%	717	100.00%	717
2027	1,115	66.94%	746	100.00%	746
2028	1,166	66.78%	779	100.00%	779
2029	1,213	66.61%	808	100.00%	808
2030	1,269	66.44%	843	100.00%	843
2031	1,310	66.27%	868	100.00%	868
2032	1,361	66.11%	900	100.00%	900
2033	1,413	65.94%	932	100.00%	932
2034	1,463	65.77%	962	100.00%	962
2035	1,522	65.61%	998	100.00%	998
2036	1,575	65.44%	1,031	100.00%	1,031
2037	1,642	65.27%	1,072	100.00%	1,072
2038	1,705	65.10%	1,110	100.00%	1,110
2039	1,774	64.94%	1,152	100.00%	1,152
2040	1,841	64.77%	1,192	100.00%	1,192

Prepared by: Capitol Market Research, 2018

demcalc.xls

Notes: New Households based on Table (17). Percent renter based on change between US 2000 Census and ACS 2012-2016 Survey. Percent multi-family deemed to be suitable for the "urban" nature of the market area.

Downtown Austin Competitive Multi-Family Sites

Currently, the market area occupancy is 93.0% occupied, which is a sharp increase from the 87.8% reported at the end of 2016. Recent interviews with the City of Austin planning department, and local brokers and apartment developers, revealed 15 competitive sites for multi-family construction, including five in the Waller Creek TIF zone. Currently, none of these properties are considered "affordable" or "student" housing. In order to be considered as "planned" competition, 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. Sites are defined as being "potentially competitive" if the land is currently zoned appropriately for multi-family development and utilities are available. One additional project, 3rd & Colorado, recently filed a site development permit for an apartment tower, but now will be completed as an office building for Parsley Energy, and is therefore considered "canceled". In the subject market area, there are a number of potentially competitive sites that have zoning which allows for multi-family and could be developed with new apartments, but as of April 2018, these sites are not considered to be a part of the competitive "pipeline".

The annual additions to the market area resulting from the development of this potential inventory of multi-family units will 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. Until construction actually begins, there is always uncertainty regarding project viability and timing.

Planned & Under Construction Multi-Family Sites

Downtown Austin

Map No	Project	Address	Building Type	Units	Developer	Status	Zoning
1	1301 W 5th Street	1301 W. 5th St.	Podium	225	CWS	Construction	LI-PDA-NP
2	5th & Brazos	501 Brazos St.	Tower	320	Magellan Development	Approved	CBD
3	600 Guadalupe	600 Guadalupe St.	Tower	340	Lynd Development	Submitted	CBD
4	610 East 11th Street	610 East 11th Street	Tower	300	Greystar	Proposed	CBD
5	80 Red River	80 Red River St.	Tower	400	Genesis Real Estate	Proposed	CBD
6	91 Red River	91-93 Red River Street	Tower	328	Endeavor	Submitted	CBD
7	Alexan Capital	700 E. 11th St.	Tower	274	Trammell Crow	Submitted	CS-CO-NP
8	E. 9th Street Apts	701 E. 9th St.	Podium	152	Sackman Enterprises	Submitted	CBD
9	East Avenue Apts	16 North IH-35	Tower	218	Richmond/Ascension	Submitted	CBD
10	Gables Republic Square	401 Guadalupe St.	Tower	215	Gables Residential	Construction	CBD
11	Pressler Avenue Apts (300)	300 Pressler Ave.	Podium	112	Riverside Resources	Approved	CS-CO-NP
12	Pressler Avenue Apts (315)	315 Pressler Ave.	Podium	107	Riverside Resources	Approved	CS-CO-NP
13	The Avenue	721 Congress Ave.	Tower	135	Congress Dev. Partners	Approved	CBD
14	Trinity Tower	401 E. Cesar Chavez St.	Tower	360	World Class Capital	Expired	CBD-CURE
15	Waller Center Building B	92 Red River St.	Tower	295	McCourt/Hines	Approved	CBD-CURE
	Total			3,781			

Source: Review of city plats, developer interviews, April 2018

Note: (AH) = Affordable Housing, (SH) = Student Housing

Compsite_apt_cbd.xls

 $[*]Status\ of\ Submitted$, Approved, or Expired refer to City of Austin permitting. Proposed project have not yet been submitted to City of Austin permitting.

Downtown Austin and Subject Absorption Forecast

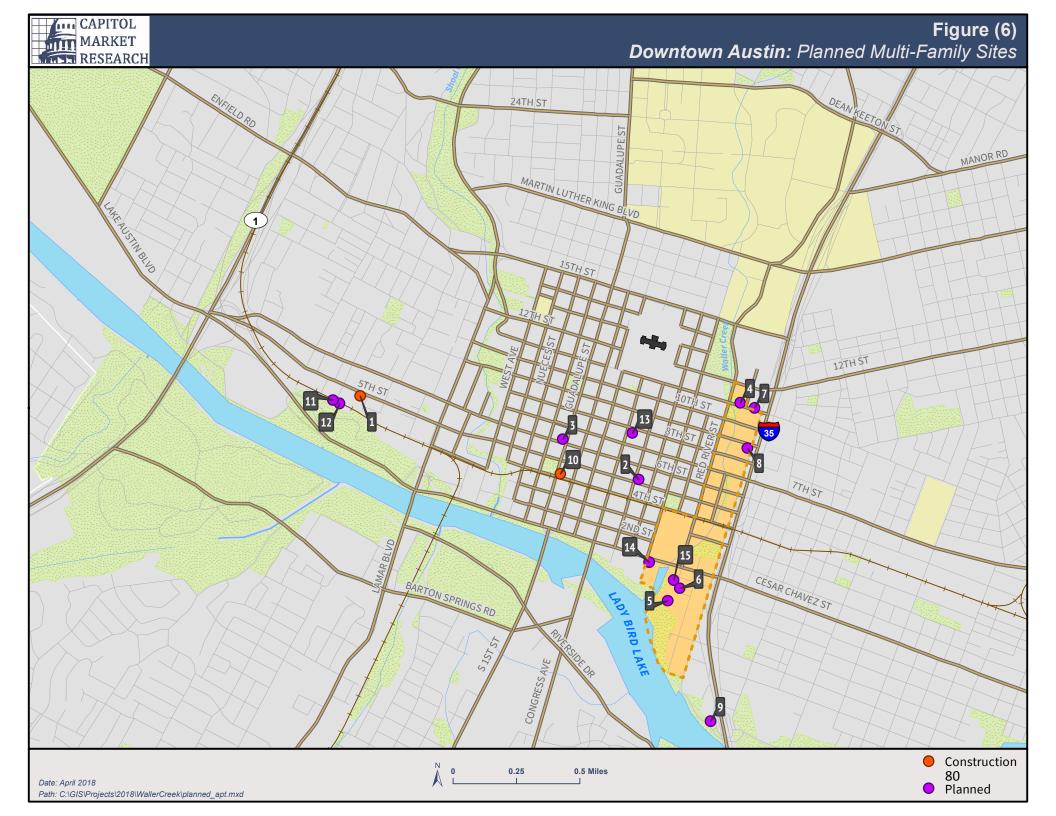
It is estimated that the subject market area will show an average annual demand of 560 new apartment units for 2018 through 2022 (Table (17)). The data shown in Table (20) below shows the timing the planned multi-family projects in the market area. There is one recently "canceled" project (3rd & Colorado), and five additional projects "on hold" due to situations such as higher than anticipated construction costs, financing challenges, and right of way disputes. Among the 15 projects listed below, two under construction are expected to deliver units in 2019, one planned project will start delivering units in 2019 and into 2020, and two additional project will introduce units in 2020. A slight "overbuilt" scenario might develop in 2020, however, "pent-up" demand carried over from an absence of new unit deliveries in 2017 and 2018 will help to mitigate a drop in occupancy during that time.

Table (20)
Proposed Project Timing
Downtown Austin

Map No.	Project Name	Units Planned	First Unit Delivery	2018	2019	2020	2021	2022	Future
1	1301 W 5th Street	225	Mar-19		225				
2	5th & Brazos	320	tbd						320
3	600 Guadalupe	340	tbd						340
4	610 East 11th Street	300	tbd						300
5	80 Red River	400	tbd						400
6	91 Red River	328	Sep-20			328			
7	Alexan Capital	274	Sep-20			274			
8	E. 9th Street Apts	152	tbd						152
9	East Avenue Apts	218	on hold						218
10	Gables Republic Square	215	Mar-19		215				
11	Pressler Avenue Apts (300)	112	on hold						112
12	Pressler Avenue Apts (315)	107	on hold						107
13	The Avenue	135	Mar-20						135
14	Trinity Tower	360	on hold						360
15	Waller Center Building B	295	on hold		•••		•••		295
	Total New Units:	3,781		0	440	602	0	0	2,739
		Demand:		503	539	576	585	599	
	Annual Excess (shortage)	of Demand:		503	99	(26)	585	599	

Source: Review of city plats, developer interviews, April 2018

Compsites.xls



Waller Parks District Multi-Family Absorption

The previous sections have discussed the regional multi-family market and the growth statistics related to the multi-family market in Downtown Austin. The data shows that the CBD continues to be competitive in the regional multi-family context and has maintained a healthy share of new multi-family construction and absorption while also commanding the highest average rental rates in the city. As discussed earlier, the success of the downtown in a regional context is largely due to the rich mix of land uses in close proximity and the walkable character of the downtown district. The continuing success of the downtown market is also dependent upon the availability of vacant land, and the redevelopment of underutilized parcels.

In 2010, the City of Austin completed the Austin Downtown Master Plan which outlined a vision for the CBD that included a proposed land use plan for sub districts within the CBD. As part of the future land use plan, the master plan consultants identified "opportunity sites." These opportunity sites were either vacant (in 2010) or have low density improvements which do not reflect the highest and best use of the property. Current CBD zoning allows an 8:1 FAR unless the site is within an historic district (like West 6th Street) or is within a protected Capital View Corridor (CVC). On some sites the owner has achieved a higher density "bonus" that increased the FAR. Taking the FAR constraints into consideration, the Master Plan consultants identified the potential for adding approximately 37.2 million square feet of additional building net rentable space in the CBD. Within the existing Waller Creek TIF boundary, the consultants identified opportunity for development of approximately 9.4 million square feet of new development.

In 2017, Nelsen Nygaard completed the Downtown Austin Parking Stratgey Plan for the Downtown Austin Alliance. Part of the plan included an opportunity site assessment (update) which was completed by McCann Adams Studio. The site assessment shows a total of 37.8 million square feet of development opportunity, which assumes that all sites are built to their maximum F.A.R., including a density bonus. Within the Waller Parks District there is a potential to develop 8.6 million square feet of development (with the bonus), which is 22.73% of the total development potential in the CBD.

A preliminary estimate of the multi-family absorption potential for the Waller Creek TIF was calculated for the existing TIF district using the proportional share of the (remaining) downtown development potential (23.73%) combined with an estimate of the "competitive" share. This competitive share reflects the change in character likely to occur as a result of the implementation of the planned Waller Creek masterplan and significant Creekside improvements. The "blended" capture rate is the average of the proportional and competitive share. This absorption forecast is shown on Table (21) on the following page.

Table (21)

Waller Parks District

Annual Apartment Unit Absorption Potential

				Wall	er Parks Distr	ict	
Date	CBD Absorption	CBD New Completions	Propotional Market Share	Competitive Market Share	Blended Share	WPD Absorption Potential	Cummulative Absorption Potential
2018	403	0	23.7%	23.7%	24%	96	96
2019	434	440	23.7%	24.2%	24%	104	200
2020	474	602	23.7%	24.8%	24%	115	314
2021	507	0	23.7%	25.3%	24%	124	439
2022	542	0	23.7%	25.8%	25%	134	573
2023	574	599	23.7%	26.3%	25%	144	716
2024	612	599	23.7%	26.8%	25%	155	871
2025	646	600	23.7%	27.3%	26%	165	1,036
2026	688	700	23.7%	27.8%	26%	177	1,213
2027	730	700	23.7%	28.3%	26%	190	1,403
2028	730	700	23.7%	28.9%	26%	192	1,595
2029	730	700	23.7%	29.4%	27%	194	1,789
2030	730	700	23.7%	29.9%	27%	196	1,984
2031	730	700	23.7%	30.4%	27%	197	2,182
2032	730	700	23.7%	30.9%	27%	199	2,381
2033	730	700	23.7%	31.4%	28%	201	2,582
2034	730	700	23.7%	31.9%	28%	203	2,785
2035	730	700	23.7%	32.4%	28%	205	2,990
2036	730	700	23.7%	33.0%	28%	207	3,197
2037	730	700	23.7%	33.5%	29%	209	3,405
2038	730	700	23.7%	34.0%	29%	210	3,616
2039	730	700	23.7%	34.5%	29%	212	3,828
2040	730	700	23.7%	35.0%	29%	214	4,042
Total	15,092				27%	4,042	

Source: Planned unit completions from Table (20)

comp_aptsites_cbd.xls

CBD Absorption forecast from Table (17). Proportionate share based on perctage of opportunity site FAR Competitive share shows the area increasing share as the Waller Parks District is built and programmed

DOWNTOWN AUSTIN ATTACHED HOUSING (CONDO) MARKET CONDITIONS

Condominium 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 ageing 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.

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 suburban communities, which include Cedar Park, Georgetown, Lakeway and Round Rock.

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

Current Market Conditions (MLS)

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.

Table (22)
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, March 2018

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



Current Market Conditions (MetroStudy)

As shown in the historical data on the previous pace, attached housing, most of which are sold as condominium regimes, continue to become an ever increasing segment of the new home market in Austin. A current (4Q 2017) inventory of all actively selling condominium regimes in the Austin area by MetroStudy shows that the Central and West market areas have the highest average prices, at \$619,017 and \$544,946 respectively. The East, Southeast, and West market areas currently have the smallest amount of under construction and future inventory, while the largest amount of under construction and future inventory is located in North and Central Austin. According to MetroStudy, the average price of all currently active condominiums is \$387,847, or \$201 per square foot. It should be noted that the price point indicated in the MetroStudy date is a better of reflection of new condominium inventory, as MLS sales have both new and resales included in their averages.

Table (23)

MetroStudy Active Condominium Summary

Austin MSA

-							
Market Area	No. Projects	Average Price	Average Sq.Ft.	Average Price/Sq.Ft.	Occupied Units	Under Const. Units	Future Units
Central	33	\$619,017	1,654	\$374	978	1,303	489
East	1	\$296,776	2,452	\$121	88	3	6
North	38	\$293,186	1,893	\$155	947	410	1,935
Northwest	14	\$349,093	2,120	\$165	505	63	660
Southeast	9	\$328,031	1,740	\$188	479	211	239
Southwest	18	\$318,105	1,876	\$170	672	186	865
West	20	\$544,946	2,440	\$223	288	117	584
Total/Average	133	\$387,847	1,931	\$201	3,957	2,293	4,778

Capitol Market Research, March 2018

metrostudy_4q2017

Data from MetroStudy 4Q 2017 Summary for active condominiums, townhomes, and single family condominium regimes in the Austin area

Austin MSA Condominium Demand Forecast

The condominium demand forecast was also derived for the Austin MSA using the household forecast (Table (17)) and owner households in the MSA according to the US 2010 Census (58.5%). 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 1,379 units a year from 2018 through 2040. 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 (24)
Condominium/Attached Housing Demand
Austin-Round Rock MSA

Year	New Households	Percent Owner	New Owner Households	Condominium Demand
2018	19,512	58.5%	11,412	1,178
2019	19,707	58.5%	11,527	1,190
2020	19,990	58.5%	11,692	1,207
2021	19,980	58.5%	11,686	1,206
2022	20,209	58.5%	11,820	1,220
2023	20,385	58.5%	11,923	1,230
2024	20,669	58.5%	12,089	1,248
2025	20,976	58.5%	12,269	1,266
2026	21,170	58.5%	12,382	1,278
2027	21,495	58.5%	12,572	1,297
2028	21,934	58.5%	12,829	1,324
2029	22,201	58.5%	12,985	1,340
2030	22,658	58.5%	13,252	1,368
2031	23,011	58.5%	13,459	1,389
2023	23,542	58.5%	13,769	1,421
2033	24,048	58.5%	14,066	1,452
2034	24,469	58.5%	14,312	1,477
2035	25,091	58.5%	14,676	1,515
2036	25,590	58.5%	14,967	1,545
2037	26,239	58.5%	15,347	1,584
2038	26,866	58.5%	15,714	1,622
2039	27,514	58.5%	16,093	1,661
2040	28,117	58.5%	16,446	1,697

Source: New Households from Table (17)

emp_gro_2018.xls

Percent Owner (58.5%) based on US Census 2010

Conominium demand based on % of MLS sales in the Austin MSA over the past 10 years (10.32%)

Market Area MLS Attached Housing Sales

Within the Downtown Austin market area, the MLS sales data (including new and resale listings) shows an upward trend over the last decade as overall demand for housing in Austin has increased. MLS sales of townhomes, condos, and duplexes in the market area peaked at 465 in 2013 and finished 2014 with 371 sales. Recently, the pace of sales has been relatively stable, averaging 371 sales from 2014 through the end of 2017. The first two months of 2018 has already seen 51 attached housing sales in the market area. From 2005 through the first two months of 2018, attached housing sales have made up 83.2% of all single family MLS sales in the market area, although this percentage has continued to rise from 72.6% in 2005 to a current (2018) percentage of 94.4%.

Average unit prices increased between 2005 and 2007, when it reached \$326,299, or \$287 per square foot. While total sales and prices fell in 2008 and then again in 2009, as the housing market recovered, prices began to rise at an average of 10.93% per year from 2010 through 2013. Since then, the trend for higher unit prices has continued, rising between 2013 and 2014 at a rate of 14.58%, closing 2014 with an average price of \$519,659. In 2015, the average sales price continued to climb, reaching \$534,924, or \$495 per square foot. Through the end of 2016, the average sales price declined slightly to \$516,707 (\$485 per square foot), and then jumped 20.3% in 2017 to reach \$621,344. In the first two months of 20178, the 51 attached housing sales have averaged a sales price of \$648,262.

The average unit size fell from 1,258 square feet in 2005 to 1,050 square feet in 2008, as newer construction tended toward higher density. The average attached housing size has stayed relatively consistent from 2008 through the first two months of 2018, averaging 1,108 square feet. It should be noted that some of the new, larger, more expensive condominium and townhomes projects have onsite sales personnel and do not list all of their units on the ABOR MLS system.

Table (25)
Attached Housing Sales

Downtown Austin

Year	Total Sales	Average Sales Price	Average Sq.Ft.	Average \$/Sq.Ft.	Average DOM
			•		
2005	267	\$266,628	1,258	\$212	66
2006	279	\$299,079	1,201	\$249	52
2007	311	\$326,299	1,136	\$287	58
2008	222	\$299,247	1,050	\$285	82
2009	197	\$295,043	1,054	\$280	83
2010	260	\$304,237	1,114	\$273	95
2011	333	\$328,851	1,097	\$300	85
2012	360	\$395,866	1,172	\$338	64
2013	465	\$449,243	1,142	\$393	42
2014	371	\$519,659	1,133	\$459	40
2015	401	\$534,924	1,081	\$495	44
2016	370	\$516,707	1,066	\$485	55
2017	341	\$621,344	1,164	\$534	69
Feb-18	51	\$648,262	1,110	\$584	58

Source: Austin Board of Realtors, MLS Database; Census Tracts Prepared by Capitol Market Research, March 2018 $condo_sum.xls$

MLS Search Conditions: Condo, Townhome and Duplex in Census defined market area



Market Area New Attached Housing Market Trends

Overview

In March 2018, Capitol Market Research surveyed 14 completed and five under construction condominium projects that are currently taking contracts for purchase in the Downtown Austin market area. Taken together, these projects contain a total of 2,111 completed units and 968 units under construction (or planned). Among the 14 completed projects, two are considered currently "active", with units available for purchase from the developer, the other 12 projects are "sold out". As of March 1, 2018, 2,091 of the total 2,111 units in the completed and active projects are currently under contract or sold. The weighted average unit price among these 14 projects is \$611,284 for 1,257 sq. ft. which equates to \$486 per square foot. The absorption rate among these projects varies, with an average rate of 6.22 units a month. The 360 Condominiums achieved a rate of 10.85 sales per month when it opened, followed by The Milago (8.78 per month), and Seaholm Residences, also with sales of 8.78 units per month.³

Completed Projects

Twelve of the eighteen surveyed projects are considered completed, and "sold out", with the developer having sold all of the units in their project. These projects, listed in Table (26), were completed between 2005 and 2016, and range in size from 25 units to 430 units. These projects range in average price (original sales price) from \$245,730 in the 904 West project to \$1,313,000 in the Four Seasons Residences, and in average unit size from 690 square feet at 904 West to 2,063 square feet at the Four Seasons Residences. The average price for the twelve completed and "sold out" projects is \$559,525 for a 1,209 square foot unit (\$477 per square foot).

Active Projects

The only two "active" projects in the market area, where the developer is still selling units, are The Austonian, which has delivered all of the planned units, and the recently completed 1010 W. 10th Street. The Austonian project is new construction (not a conversion), and approximately 92.5% of the 173 total units have been sold. The average original asking price for this project is \$1,150,820 for an 1,839 square foot unit (\$626 per square foot). The thirteen units remaining are unfinished "shell" space with few interior walls, which allows the buyer to design and finish out the unit to their specifications. The other "active" project is 1010 W. 10th Street, a smaller, 14 unit condominium flat building that has sold 50% of their units, at an average price of \$1,057,350, or \$530 per square foot.

Projects Under Construction

There are five projects currently under construction which are considered to be competitive with the subject property. These projects are considered to be "competitive" with the subject, because of their location in the subject market area with units for sale by the original developer/owner. The 968 units among these five projects currently include 616 units under contract with an non-refundable earnest money deposit. The Austin Proper has the highest average sales price at \$877 per square foot, while The Tyndall has the lowest at \$532 per square foot. It should be noted that although The Tyndall is just east

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.

of the defined market area, it was include in the survey. All five properties together have a current average sales price of \$1,045,083, or \$747 per square foot.

Absorption Rates

As a general rule, lower priced units will sell faster than higher priced units in a given market area. The average number of units sold per month among the completed projects in the market area was 6.22 units. The highest rate of absorption among completed project was at the 360 Condominiums (10.85 units per month), followed by The Milago (8.78 units/month), and Seaholm Residences (8.78 units per month). In this market, it appears that the "perceived value" of the product and price per square foot, along with location, all have influences on the rate of sales in the projects. The units in larger projects generally sell at a faster pace, possibly due to the presence of an on-site marketing staff, which is especially apparent at The Independent, which has achieved the highest rate of pre-sale contracts (7.97 units per month), due to their extensive marketing and sales campaign.

Table (26) New Condominium Sales Activity

Downtown Austin

				Complet	Completed "Sold Out" Projects	rojects						
Map No	Project	Address	YOC	Planned Units	Completed Units	Contracts / Sales	Date c Mark	Date of Initial Marketing	Sales/ Month	Average Price*	Average Sqft	Price Per Sqft
1	360 Condominiums	360 Nueces Street	2008	430	430	430	Fel	Feb-06	10.85	\$355,322	944	\$376
2	SFiftyFive	555 E. 5th Street	2002	86	86	86	00	Oct-04	2.51	\$712,286	1,609	\$443
æ	904 West	904 West Avenue	2012	56	26	56	No	Nov-10	0.75	\$245,730	069	\$326
4	Celia's Court	908 Nueces	2017	32	32	32	ıηΓ	Jul-16	7.16	\$397,963	1,071	\$372
2	Four Seasons Residences	98 San Jacinto Street	2010	148	148	148	Ma	May-07	2.00	\$1,313,000	2,063	\$636
9	Park West Residences	1812 West Avenue	2012	45	45	45	Ma	Mar-12	1.27	\$402,455	1,150	\$350
7	Pease Place Condos	1603 Enfield Road	2012	22	25	25	Jul	Jun-12	0.91	\$274,845	774	\$322
∞	Residences at the W	210 Lavaca Street	2011	159	159	159	Jar	Jan-07	1.66	\$1,206,678	1,871	\$645
6	Seaholm Residences	222 West Avenue	2016	280	280	280	No	Nov-13	8.78	\$550,000	965	\$570
10	The Milago	54 Rainey Street	2006	240	240	240	Jar	Jan-05	8.78	\$307,568	1,088	\$283
11	The Shore	603 Davis Street	2008	192	192	192	Ma	Mar-06	4.08	\$405,694	1,111	\$365
12	The Spring	300 Bowie Street	2009	249	249	249	Ma	Mar-07	3.27	\$473,628	1,094	\$433
		Total/Averages		1,924	1,924	1,924			6.22	\$559,525	1,199	\$467
					Active Projects							
Мар	Project	Address	YOC	Planned	Completed	Contracts/	% Occ Date o	_	Sales/	Average	e e	Price Per
No			,	Units	Units	Sales		Marketing	Month	Price*	Sqft	Sqft

				1	Active Projects							
Map No	Project	Address	YOC	Planned Units	Completed Units	Contracts / Sales	200%	Date of Initial Marketing	Sales/ Month	Average Price*	Average Sqft	Price Per Sqft
13	13 The Austonian	200 Congress Avenue	2010	173	173	160	92.5%	May-07	1.23	\$1,150,820	1,839	\$626
14	14 1010 West 10th St.	1010 West 10th St.	2018	14	14	7	50.0%	Aug-16	0.39	\$1,057,350	1,995	\$530
		Total/Averages		187	187	167	89.3%		1.14	\$1,064,662 1,701	1,701	\$626
											ı	

		Unde	r Construc	tion Projects	with "Pre-Sale	Under Construction Projects with "Pre-Sale Reservations or Contracts"	or Contra	cts"				
Map No	Project	Address	YOC	No. Units Planned	No. Units Complete	Presales / Mate of Initial Presales Reservations Presold Marketing Month	% Presold	% Date of Initial Presales/ esold Marketing Month	Presales/ Month	Average Price*	Average Sqft	Average Price Per Sqft Sqft
15	15 5th & West Residences	501 West Avenue	2018	154	0	66	64.3%	Oct-14	2.41	\$1,315,000	1,755	\$749
16	70 Rainey	70 Rainey Street	2018	164	0	06	54.9%	Oct-15	3.15	\$1,126,108	1,423	\$791
17	Austin Proper ⁽¹⁾	202 Nueces	2018	86	0	09	61.2%	Nov-15	2.14	\$1,738,214	1,982	\$877
18	The Independent	301 West Avenue	2019	370	0	279	75.4%	Apr-15	7.97	\$978,000	1,304	\$750
19	19 The Tyndall ⁽²⁾	800 Embassy	2018	182	0	88	48.4%	Oct-16	5.19	\$506,834	952	\$532
		Total/Averages		896	0	616	63.64%		5.16	\$1,045,083	1,398	\$747
Capitol	Capitol Market Research, April 2018										Condo Sur	Condo Summary_dt.xls

Capitol Market Research, April 2018

Note: Data from Developers, Real Estate Agents, City of Austin Permits, Travis Central Appraisal Deed Records

* Average Price represents original sales pricing

(1) Austin Proper contracts is an estimate based on information from credible sources, but not the developer

(2) The Tyndall is just east of the defined market area, but included in the survey

Market Area New Attached Housing Unit Sales

While it is very important to assess the market strength by evaluating the number of units currently under contract, it is also instructive to analyze the actual "recorded" closings that have occurred in the subject market area. Between January 2004 and March 29, 2018, there have been 2,320 new condominium units sold and closed in completed projects in Downtown Austin. Based on the closing data, the average monthly absorption over this nearly 15 year period (170 months) is 13.46 units. The highest rate of absorption was achieved in 2006 when 445 units were closed (37.08 units per month, on average). Currently there are 19 units remaining in inventory in two completed projects, which would be approximately over one month of supply based on the historical absorption rate of 13.46 units per month.

Table (27)

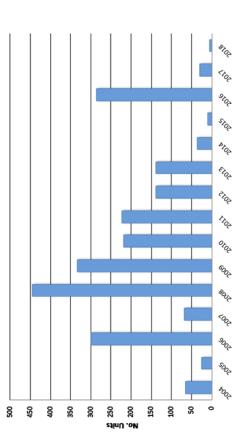
New Condominium Original Developer Sales: Based on Recorded Deed Transfer

Downtown Austin

	Г	-															-	
Total Date of First 2004 2005 2	2004 2005	2002		2	2006 20	2007 20	2008 2	2009 2	2010 2	2011 2	2012 2	2013 2	2014 2	2015	2016	2017	2018	Remaining Inventory
13 Oct-17			:			:	:	:	:	:	:	:	:	:	:	2	e	80
430 May-08	:		:				281	149	:	:	:	:	:	:	:	:	:	0
98 Dec-04 11	:		11		22	12	:	:	:	:	:	:	:	:	:	:	:	0
26 Nov-10	ï		:	•			:	:	4	15	æ	4	:	:	:	i	:	0
82 Jan-04 65 14		65 14	14	-	m		:	:	:	:	:	:	:	:	:		:	0
80 Jan-00	ï		:	•	,	32	21	24	:	:	:	:	:	:	:	i	:	0
24 May-17	ı		:	-			:	:	:	:	:	:	:	:	:	24	:	0
148 May-10	ı		:	•			:	:	23	32	42	21	:	:	:	ı	:	0
45 Sep-12	ï		:	•		ī	:	:	:	:	6	27	∞	1	:	ı	:	0
25 Dec-12	i		:	•	i	ī	:	:	:	:		22	7	:	ī	ı	:	0
159 Dec-11	ı		:	•		ī	:	:	:	78	33	33	∞	1	:	:	;	0
80 Dec-07			:	•		7	34	:	41	e	:	:	:	:	:	ı	:	0
280 Mar-16	÷		:	•	:	:	:	:	:	:	:	:	:	:	280		:	0
168 Mar-10	ī		:	•		:	:	:	9	22	31	21	18	∞	9	4	7	11
240 Jun-06	ī		:	7	221	19	:	:	:	:	:	:	;	:	:	ı	:	0
192 Apr-08	:		:	•			109	74	6	:	:	:	;	:		ı	:	0
249 Aug-09	:		:	-		:	:	98	11	89	14	10	:	:			:	0
Annual Totals 65 25	25	25		2	299	68 4	445	333	218 2	223	139	138	36	10	286	30	5	19

Prepared by Capital Market Research, March 2018 Note: Not all closings have not been recorded in TCAD for Seaholm. Project is 100% sold.

condo sales by yearxis



Market Area Condominium Demand

The downtown Austin market area has been very attractive to potential home buyers who are seeking an urban lifestyle in an active, walkable and diverse environment. The "lock and leave" aspect of condominium ownership appeals to a diverse clientele of wealthy young professionals, downsizing empty nesters, and second home buyers. Notwithstanding the appeal to out-of-town buyers, the condominium demand forecast was derived for the Downtown Austin market area, using the household forecast (Table (17)) for the market area and the growth in owner households in the market area from 2000 through 2010 (US Census). CMR also analyzed all new building permits issued in the market area according to building type (attached vs. detached), and established that virtually all new housing being built in the Downtown Austin market area is "attached" housing. Using "attached" housing as a synonym for condominium and townhome units in an urban context, and assuming that future development will be similar to the recent past, the Downtown Austin market area demand forecast yields an average annual demand of 418 condominium units from 2018 through 2040, shown on Table (28) on the following page.

In addition to a "calculated" demand estimate for the market area, there are other demand drivers that influence the area that are more difficult to translate into hard numbers. A study done in 2008 by Capitol Market Research for the owners of four new condominium projects downtown identified a "buyer profile", based on actual buyer demographics, which indicated that there are several types of buyers other than those who are moving their primary residences into downtown. The CMR study showed that "primary residence" was only listed by the new condominium buyers 68.4% of the time. Among the remaining buyers, 17.7% were buying a downtown condominium as a second residence, and 13.6% were buying a unit as an investment property. More recent conversations with sales teams at several condominium projects under construction highlight this issue, and the number of units under contract exceeds the "calculated" demand. As a result of these factors, it seems quite likely that the number of buyers will exceed the number of new households that are forecasted to become downtown residents.

Table (28)
Attached Housing Demand
Downtown Austin

	Net HH		MARKET ARI	EA FORECAST	
Year	Increase	% Owner	New Owner HH	% Attached	Final Demand
2018	741	31.55%	234	100.0%	234
2019	791	31.72%	251	100.0%	251
2020	844	31.89%	269	100.0%	269
2021	874	32.05%	280	100.0%	280
2022	913	32.22%	294	100.0%	294
2023	946	32.39%	306	100.0%	306
2024	989	32.56%	322	100.0%	322
2025	1,031	32.72%	337	100.0%	337
2026	1,069	32.89%	352	100.0%	352
2027	1,115	33.06%	368	100.0%	368
2028	1,166	33.22%	387	100.0%	387
2029	1,213	33.39%	405	100.0%	405
2030	1,269	33.56%	426	100.0%	426
2031	1,310	33.73%	442	100.0%	442
2032	1,361	33.89%	461	100.0%	461
2033	1,413	34.06%	481	100.0%	481
2034	1,463	34.23%	501	100.0%	501
2035	1,522	34.39%	523	100.0%	523
2036	1,575	34.56%	544	100.0%	544
2037	1,642	34.73%	570	100.0%	570
2038	1,705	34.90%	595	100.0%	595
2039	1,774	35.06%	622	100.0%	622
2040	1,841	35.23%	648	100.0%	648

Prepared by: Capitol Market Research, 2018

demcalc.xls

Notes: New Households based on Table (17). Percent owner based on change between US 2000 Census and ACS 2012-2016 Survey. Percent "attached" (100%) deemed to be suitable for urban nature of market area.

Market Area Planned Condominium Projects

In order to accurately forecast the absorption rate for the condominium market in the Waller Creek Parks District, it is necessary to identify the other 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 (29) lists the projects whose location, size and development program indicate that they may be brought to market in the Downtown Austin market area over the next several years. Projects are broadly defined as being "competitive" if the land is currently zoned appropriately for condominium or multi-family development and utilities are available. 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 or multi-family project at a location that will make it potentially competitive with the subject. The planned project timing table shows the number of units planned for condominium development within the market area, and presents this information by units delivered annually, to provide a complete picture of the potential additions to the market area supply. Based on conversations with the developer and sales team members, the anticipated delivery schedule for nine planned projects is shown in Table (30) on the following page.

Table (29)
Under Construction & Planned Condominium Projects
Downtown Austin

Map No	Project Name	Location	Planned Units	Developer	Status
1	1010 W. 10th	1010 W 10th St	14	West 10th LLC	Complete
2	48 East	48 East Avenue	239	LD&C	Approved
3	5th & West Residences	501 West Ave	154	Riverside Resources	Construction
4	70 Rainey	70 Rainey St	164	Sackman Enterprises	Construction
5	Austin Proper Residences	202 Nueces St	99	The Kor Group	Construction
6	Block 185	600 W Cesar Chavez	196	Trammell Crow Company	Planned
7	The Independent	301 West Ave	370	Constructive Ventures/Aspen Heights	Construction
8	The Stonewall	700 Blanco St	11	Arbol Lindo, LLC	Construction
9	Waller Center Bldg. C	Cesar Chavez @ Red River	203	The Sutton Co./McCort	Approved
	Total Units		1,450		

Source: Capitol Market Research, March 2018

compsite_condo_dt_2018.xls

Table (30)

Condominium Project Timing

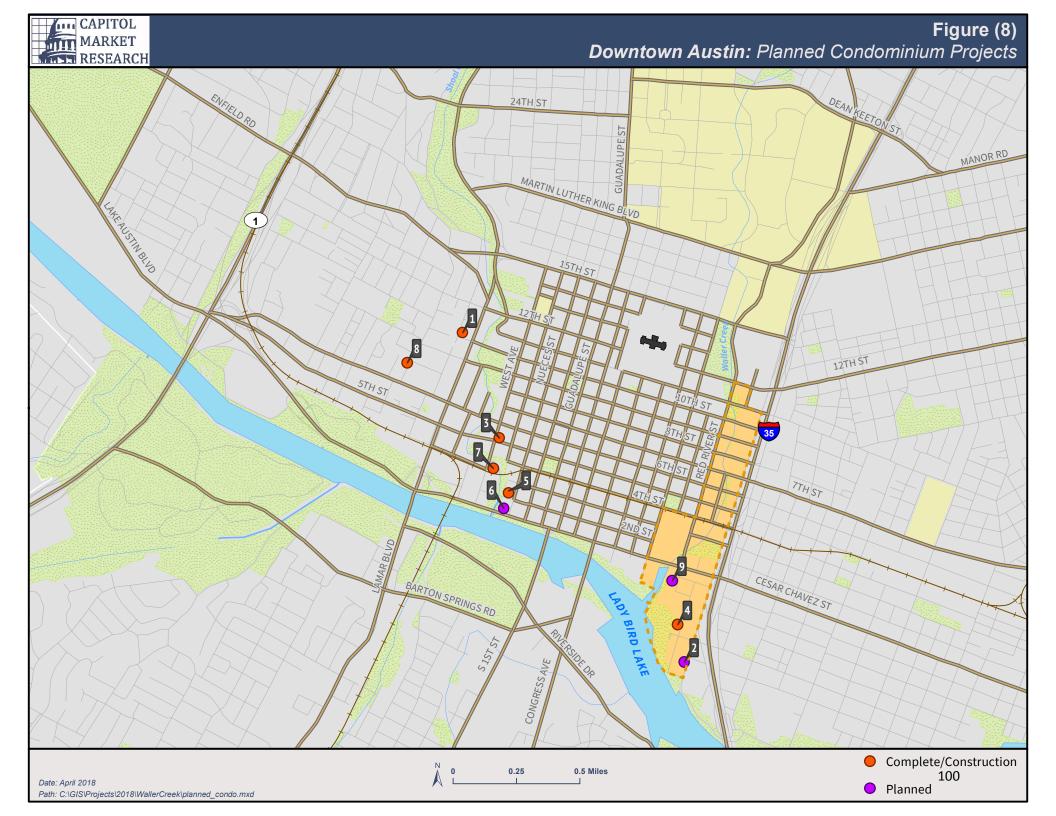
Downtown Austin

Map No.	Project Name	Delivery Date	Planned Units	2018	2019	2020	2021	2022	Future
1	1010 W. 10th	Feb-18	14	14					•••
2	48 East	Oct-20	239			239			
3	5th & West Residences	Oct-18	154	154					
4	70 Rainey	Feb-19	164		164				
5	Austin Proper Residences	Mar-19	99		99				
6	Block 185	Apr-22	196					196	
7	The Independent	Feb-19	370		370				
8	The Stonewall	Apr-18	11	11					
9	Waller Center Bldg. C	tbd	203						203
	Total Un	its Planned	1,450	179	633	239	0	196	203
	Market Ar	ea Demand		234	251	269	280	294	
	Surplus / (Defic	it) Demand		55	(382)	30	280	98	

Source: Capitol Market Research, March 2018

compsite_condo_dt_2018.xls

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



Waller Parks District Attached Housing Absorption

The previous sections have discussed the regional attached housing (condominium and townhome) market and the growth statistics related to the attached housing market in Downtown Austin. The data shows that the CBD continues to be competitive in the regional attached, "urban", housing context and has maintained a healthy share of new construction and absorption while also commanding the highest sales price per square foot in the city. As discussed earlier, the success of the downtown in a regional context is largely due to the rich mix of land uses in close proximity and the walkable character of the downtown district. The continuing success of the downtown market is also dependent upon the availability of vacant land, and the redevelopment of underutilized parcels.

In 2010, the City of Austin completed the Austin Downtown Master Plan which outlined a vision for the CBD that included a proposed land use plan for sub districts within the CBD. As part of the future land use plan, the master plan consultants identified "opportunity sites." These opportunity sites were either vacant (in 2010) or had low density improvements which do not reflect the highest and best use of the property. Current CBD zoning allows an 8:1 FAR unless the site is within an historic district (like West 6th Street) or is within a protected Capital View Corridor (CVC). On some sites the owner has achieved a higher density "bonus" that increased the FAR. Taking the FAR constraints into consideration, the Master Plan consultants identified the potential for adding approximately 37.2 million square feet of additional building net rentable space in the CBD. Within the existing Waller Creek TIF boundary, the consultants identified opportunity for development of approximately 9.4 million square feet of new development.

In 2017, Nelsen Nygaard completed the Downtown Austin Parking Stratgey Plan for the Downtown Austin Alliance. Part of the plan included an opportunity site assessment (update) which was completed by McCann Adams Studio. The site assessment shows a total of 37.8 million square feet of development opportunity, which assumes that all sites are built to their maximum F.A.R., including a density bonus. Within the Waller Parks District there is a potential to develop 8.6 million square feet of development (with the bonus), which is 22.73% of the total development potential in the CBD.

A preliminary estimate of the attached housing absorption potential for the Waller Creek TIF was calculated for the existing TIF district using the proportional share of the (remaining) downtown development potential combined with an estimate of the "competitive" share. This competitive share reflects the change in character likely to occur as a result of the implementation of the planned Waller Creek masterplan and significant Creekside improvements. The "blended" capture rate is the average of the proportional and competitive share. This absorption forecast is shown on table (31) on the following page.

Table (31)

Waller Parks District

Annual Condominium Unit Absorption Potential

				Wal	ler Parks Disti	rict	
Date	CBD Absorption	CBD New Completions	Propotional Market Share	Competitive Market Share	Blended Share	WPD Absorption Potential	Cummulative Demand
2018	234	179	22.7%	25.0%	23.9%	56	56
2019	251	633	22.7%	25.0%	23.9%	60	116
2020	269	239	22.7%	25.0%	23.9%	64	180
2021	280	0	22.7%	25.0%	23.9%	67	247
2022	294	196	22.7%	25.0%	23.9%	70	317
2023	306	310	22.7%	25.0%	23.9%	73	390
2024	322	320	22.7%	25.0%	23.9%	77	467
2025	337	340	22.7%	25.0%	23.9%	80	547
2026	352	350	22.7%	25.0%	23.9%	84	631
2027	368	370	22.7%	25.0%	23.9%	88	719
2028	387	390	22.7%	25.0%	23.9%	92	812
2029	405	400	22.7%	25.0%	23.9%	97	908
2030	426	430	22.7%	25.0%	23.9%	102	1,010
2031	442	440	22.7%	25.0%	23.9%	105	1,115
2032	461	460	22.7%	25.0%	23.9%	110	1,225
2033	481	480	22.7%	25.0%	23.9%	115	1,340
2034	501	500	22.7%	25.0%	23.9%	120	1,460
2035	523	520	22.7%	25.0%	23.9%	125	1,585
2036	544	540	22.7%	25.0%	23.9%	130	1,715
2037	570	570	22.7%	25.0%	23.9%	136	1,851
2038	595	600	22.7%	25.0%	23.9%	142	1,993
2039	622	620	22.7%	25.0%	23.9%	148	2,141
2040	648	650	22.7%	25.0%	23.9%	155	2,296
Total	9,621	9,537			23.9%	2,296	

Source: Absorption forecast from Table (28)

Planned unit completions from Table (30) through 2021,

then unit completions are assumed to roughly equal the absorption potential

compsite_condo_dt_2018.xls

ABSORPTION SUMMARY AND TIF FORECAST

Absorption Summary and TIF Forecast

The previous sections of this report have provided an historical review, current assessment and development forecasts for the existing Waller Creek TIF district. Forecasts have been prepared for three major property types; office, multi-family, and residential condominiums ("attached" housing). The existing TIF district contains 88.4 (net) acres of land and has a 2017 taxable value of \$779,553,282. The forecasts were prepared by first estimating the absorption potential in the downtown Austin market area, and then narrowing the focus to the Waller Parks District. The baseline evaluation of capture rate was derived from data which was initially generated for the Downtown Austin Plan (DAP), adopted by the Austin City Council on December 8, 2011. In the plan, "opportunity sites" were identified and gross building area calculated for each site. The Downtown Austin Alliance commissioned an update to the opportunity site analysis as part of the recently completed "Downtown Austin Parking Strategy". This updated information was utilized as a "base" capture rate in this study and is shown below in Table (32).

Table (32)
Opportunity Sites for New Development
Downtown and Waller Parks District

Area	Square Feet of Land Area	Square Feet of Potential Development	Square Feet Potential with Density Bonus
Downtown	104.96	21,296,098	37,756,449
In Waller Parks District	18.67	5,162,914	8,582,336
Outside Waller Parks District	86.29	16,133,184	29,174,113
Percent in Waller Creek TIF	17.8%	24.2%	22.7%

Source: Downtown Austin Parking Strategy, Nelson Nygaard, September 2016

Prepared for the Downtown Austin Alliance

Opportunity Site Analysis prepared McCann Adams Studio, as subcontractor.

opportunity sites.xls

Over the last ten years, the development focus has been in lower downtown, near Lady Bird Lake, where most of the available sites have now been developed or are currently under construction. With the construction of the Waller Creek Tunnel and the Waller Parks District, the development focus is likely to shift to include the northeast quadrant where the Innovation District initiatives are emerging and the Central Health campus redevelopment is gaining traction.

In acknowledgement of these emerging trends, CMR has provided an absorption rate for each product type as a result of the product specific demand forecasts shown in previous sections. This data is now consolidated into a summary table which covers the existing TIF district.

Table (33)
Absorption Summary
Existing TIF Boundary

		Absorption	
Year	Office Square Feet	Multi-Family Units	Attached Hosuing Units
2018	0	0	0
2019	0	0	164
2020	49,000	602	239
2021	42,000	0	0
2022	75,000	0	0
2023	63,000	0	0
2024	64,000	150	0
2025	62,000	160	0
2026	59,000	180	80
2027	60,000	190	90
2028	74,000	190	90
2029	76,000	190	100
2030	78,000	200	100
2031	80,000	200	110
2032	83,000	200	110
2033	85,000	200	110
2034	87,000	200	120
2035	90,000	200	120
2036	92,000	210	130
2037	95,000	210	140
2038	97,000	210	140
2039	100,000	210	150
2040	103,000	210	150
Total	1,614,000	3,912	2,143

Development 4.19.18

Source: Capitol Market Research, April 2018

Summary of Absorption estimates from previous sections

The next step required to prepare the TIF value forecasts is to calculate an average cost per square foot for each product category. Capitol Market Research requested and received an average square foot cost estimate for buildings from a large construction firm that is currently building towers in the downtown market. Using the upper end of the cost range provided by Austin Commercial, an estimate of Hard Costs for each product type is shown below in Table (34).

Table (34)

Construction Cost Estimates

Downtown Austin Towers

Category	Office	Multi Family	Condo Tower
Average Size	1,000	900	1,400
Average Hard Cost Per SF	\$195	\$275	\$335
Cost per Unit	\$195,000	\$247,500	\$469,000
Parking per Unit	2.6	1.5	1.7
Parking Cost per space	\$35,000	\$35,000	\$35,000
Total Parking Cost	\$91,000	\$52,500	\$59,500
Core & Shell plus parking	\$286,000	\$300,000	\$528,500
Soft Cost @ 20%	\$57,200	\$60,000	\$105,700
Construction Cost Per Unit	\$343,200	\$360,000	\$634,200
Cost Per Square Foot	\$343	\$400	\$453

Source: Preliminary cost estimates provided by a variety of sources including: Austin Commercial, Argyle Residential and CD Construction Estimating Parking ratios estimated from a sample of recently completed CBD Buildings

Development 4.19.18

Based on the absorption estimates shown in Table (33) and the cost estimates provided above, the potential TIF valuation and tax revenue potential is provided in Table (35).

Table (35)
Projected Tax Values 2018 - 2040
Waller Creek TIF District

Year	COA Taxable Value (January 1)	Planned Development Value	COA Taxable Value (December 31)	Inflated Value at (5%)
2017	ć1 1E7 212 000	\$0	ć1 157 212 000	ć1 24F 170 CO2
	\$1,157,313,908	•	\$1,157,313,908	\$1,215,179,603
2018	\$1,215,179,603	\$125,000,000	\$1,340,179,603	\$1,407,188,584
2019	\$1,407,188,584	\$76,916,000	\$1,484,104,584	\$1,558,309,813
2020	\$1,558,309,813	\$345,627,800	\$1,903,937,613	\$1,999,134,493
2021	\$1,999,134,493	\$14,414,400	\$2,013,548,893	\$2,114,226,338
2022	\$2,114,226,338	\$25,740,000	\$2,139,966,338	\$2,246,964,655
2023	\$2,246,964,655	\$21,621,600	\$2,268,586,255	\$2,382,015,568
2024	\$2,382,015,568	\$75,964,800	\$2,457,980,368	\$2,580,879,386
2025	\$2,580,879,386	\$78,878,400	\$2,659,757,786	\$2,792,745,675
2026	\$2,792,745,675	\$122,568,800	\$2,915,314,475	\$3,061,080,199
2027	\$3,061,080,199	\$131,202,000	\$3,192,282,199	\$3,351,896,309
2028	\$3,351,896,309	\$136,006,800	\$3,487,903,109	\$3,662,298,265
2029	\$3,662,298,265	\$141,383,200	\$3,803,681,465	\$3,993,865,538
2030	\$3,993,865,538	\$145,669,600	\$4,139,535,138	\$4,346,511,895
2031	\$4,346,511,895	\$151,046,000	\$4,497,557,895	\$4,722,435,789
2032	\$4,722,435,789	\$152,075,600	\$4,874,511,389	\$5,118,236,959
2033	\$5,118,236,959	\$152,762,000	\$5,270,998,959	\$5,534,548,907
2034	\$5,534,548,907	\$158,138,400	\$5,692,687,307	\$5,977,321,672
2035	\$5,977,321,672	\$159,168,000	\$6,136,489,672	\$6,443,314,156
2036	\$6,443,314,156	\$168,144,400	\$6,611,458,556	\$6,942,031,484
2037	\$6,942,031,484	\$173,864,000	\$7,115,895,484	\$7,471,690,258
2038	\$7,471,690,258	\$174,550,400	\$7,646,240,658	\$8,028,552,691
2039	\$8,028,552,691	\$180,270,000	\$8,208,822,691	\$8,619,263,825
2040	\$8,619,263,825	\$181,299,600	\$8,800,563,425	\$9,240,591,596
	, .,,,.	, - , ,	. ,,,	. , -, ,-3-
Total	\$96,727,005,969	\$3,092,311,800	\$99,819,317,769	

Source: Capitol Market Research, April 2018 Development 4.19.18

APPENDIX

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.

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
Texas Regional Mobility Authority, Board Member

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

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

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

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

Exhibit E: Waller Creek Tax Increment Financing Reinvestment Zone No. 17 TIF Value Increment and Tax Revenue Schedule

Exhibit E
Waller Creek TIRZ #17
Amendment No. 2: Estimated Tax Value Increment, Revenue
and Expenses

Tax Year	2018	2019	2020	2021	2022	2023	2024
FY	2019	2020	2021	2022	2023	2024	2025
Captured City Assessed Valuation (1)	1,104,169,888	1,271,188,372	1,421,557,779	1,554,445,657	1,693,977,929	1,840,486,815	1,994,321,145
Estimated Annual Net City Surplus / (Deficit) (2)	3,194,731	4,016,132	4,892,057	5,552,346	6,346,154	7,124,954	7,953,745
Estimated Debt Service on \$110 M		1,250,000	1,250,000	3,000,000	3,237,500	5,562,500	5,798,750
Estimated Annual Surplus /(Deficit)	3,194,731	2,766,132	3,642,057	2,552,346	3,108,654	1,562,454	2,154,995
Available Balance (3)	8,351,061	11,117,194	14,759,250	17,311,596	20,420,250	21,982,704	24,137,700

⁽¹⁾ The base year for TIRZ #17 is 2007, with a base valuation of \$236,199,782

⁽²⁾ Annual Net City Surplus / (Deficit) in the Waller Creek Reserve Fund after debt service payments are made on existing \$106 million in debt issued by City of Austin for Waller Creek Tunnel; City property tax rate assumption of \$0.4400 / per \$100 valuation

⁽³⁾ Beginning balance based on estimated \$15,156,330 FY18 ending balance in Waller Creek Reserve Fund; Assumes a \$10 million reserve fund during duration of TIRZ; equivalent to estimate annual new debt service payment

Exhibit E
Waller Creek TIRZ #17
Amendment No. 2: Estimated Tax Value Increment, Revenue
and Expenses

Tax Year	2025	2026	2027	2028	2029	2030	2031
FY	2026	2027	2028	2029	2030	2031	2032
Captured City Assessed Valuation (1)	2,155,847,191	2,325,449,540	2,503,532,006	2,690,518,595	2,886,854,514	3,093,007,229	3,319,467,579
Estimated Annual Net City Surplus / (Deficit) (2)	8,702,863	9,608,156	10,523,803	4,904,001	5,625,178	6,443,455	7,442,641
Estimated Debt Service on \$110 M	8,222,500	8,673,250	9,607,000	9,984,638	10,615,838	10,615,651	10,609,813
Estimated Annual Surplus /(Deficit)	480,363	934,906	916,803	(5,080,637)	(4,990,660)	(4,172,196)	(3,167,172)
Available Balance (3)	24,618,063	25,552,970	26,469,773	21,389,136	16,398,476	12,226,280	9,059,108

⁽¹⁾ The base year for TIRZ #17 is 2007, with a base valuation of \$236,199,782

⁽²⁾ Annual Net City Surplus / (Deficit) in the Waller Creek Reserve Fund after debt service payments are made on existing \$106 million in debt issued by City of Austin for Waller Creek Tunnel; City property tax rate assumption of \$0.4400 / per \$100 valuation

⁽³⁾ Beginning balance based on estimated \$15,156,330 FY18 ending balance in Waller Creek Reserve Fund; Assumes a \$10 million reserve fund during duration of TIRZ; equivalent to estimate annual new debt service payment

Exhibit E
Waller Creek TIRZ #17
Amendment No. 2: Estimated Tax Value Increment, Revenue
and Expenses

Tax Year	2032	2033	2034	2035	2036	2037	2038
FY	2033	2034	2035	2036	2037	2038	2039
Captured City Assessed Valuation (1)	3,557,250,947	3,806,923,484	4,069,079,647	4,344,343,618	4,633,370,788	4,936,849,317	5,255,501,772
Estimated Annual Net City Surplus / (Deficit) (2)	8,864,628	9,940,967	12,935,101	14,912,299	16,190,438	17,860,387	20,822,420
Estimated Debt Service on \$110 M	10,612,813	10,613,363	10,620,688	10,618,513	10,621,313	10,617,813	10,612,238
Estimated Annual Surplus /(Deficit)	(1,748,185)	(672,396)	2,314,413	4,293,786	5,569,125	7,242,574	10,210,182
Available Balance (3)	7,310,922	6,638,526	8,952,939	13,246,726	18,815,850	26,058,424	36,268,607

⁽¹⁾ The base year for TIRZ #17 is 2007, with a base valuation of \$236,199,782

⁽²⁾ Annual Net City Surplus / (Deficit) in the Waller Creek Reserve Fund after debt service payments are made on existing \$106 million in debt issued by City of Austin for Waller Creek Tunnel; City property tax rate assumption of \$0.4400 / per \$100 valuation

⁽³⁾ Beginning balance based on estimated \$15,156,330 FY18 ending balance in Waller Creek Reserve Fund; Assumes a \$10 million reserve fund during duration of TIRZ; equivalent to estimate annual new debt service payment

Exhibit E
Waller Creek TIRZ #17
Amendment No. 2: Estimated Tax Value Increment, Revenue
and Expenses

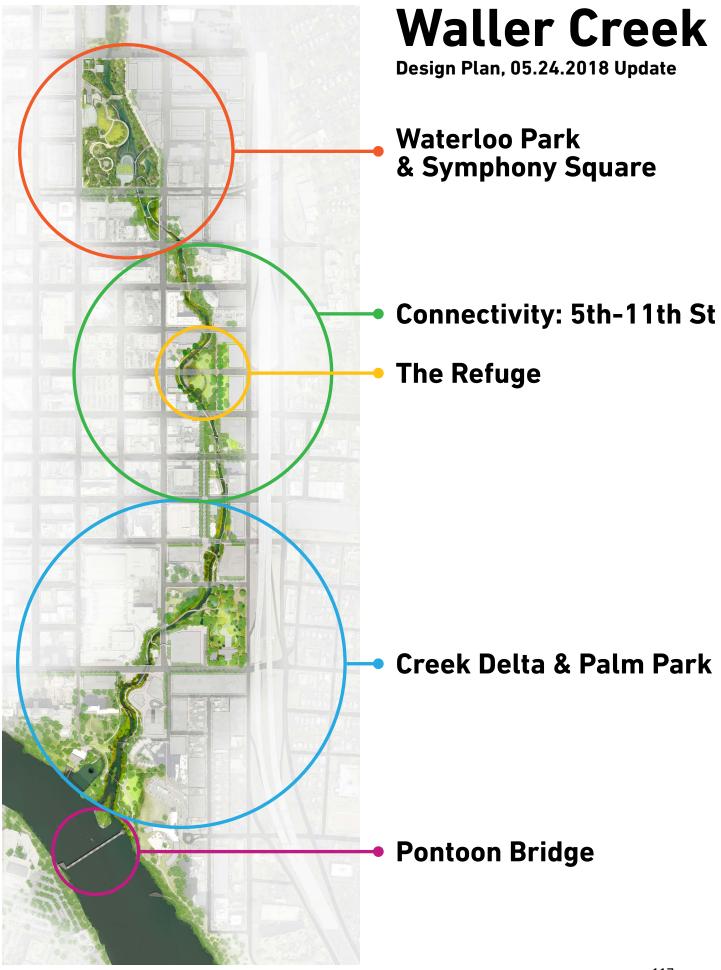
Tax Year	2039	2040
FY	2040	2041
Captured City Assessed Valuation (1)	5,590,086,850	5,941,401,181
Estimated Annual Net City Surplus / (Deficit) (2)	22,280,870	23,812,178
Estimated Debt Service on \$110 M	8,383,563	8,376,738
Estimated Annual Surplus /(Deficit)	13,897,307	15,435,440
Available Balance (3)	50,165,913	65,601,353

⁽¹⁾ The base year for TIRZ #17 is 2007, with a base valuation of \$236,199,782

⁽²⁾ Annual Net City Surplus / (Deficit) in the Waller Creek Reserve Fund after debt service payments are made on existing \$106 million in debt issued by City of Austin for Waller Creek Tunnel; City property tax rate assumption of \$0.4400 / per \$100 valuation

⁽³⁾ Beginning balance based on estimated \$15,156,330 FY18 ending balance in Waller Creek Reserve Fund; Assumes a \$10 million reserve fund during duration of TIRZ; equivalent to estimate annual new debt service payment

Exhibit F: Waller Creek Design Plan Update





Waterloo Park











Creek Delta will be the gateway to the Waller Creek District. It will connect Lady Bird Lake and the beloved Ann and Roy Butler (Butler) Trail system with Palm Park and downtown Austin. Stretching from Lady Bird Lake to 4th Street, the Creek Delta meanders through a densely urban environment creating opportunities for diverse natural landscapes and a stable channel within Waller Creek. The hike and bike trail will follow the path of the creek, allowing users to experience the natural ecology of the creek and the lush tree canopy. At strategic locations, the trail system will connect at street level sidewalks, the expanded Downtown MetroRail Station, on-street bike infrastructure, and the Rainey Street District.



Palm Park: Creek Restoration

Re-imagined relationship between Waller Creek and the city



View: Facing northeast from Waller Creek into Palm Park



