



Study of Parkland Dedication Requirements for Commercial Uses

DRAFT

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Austin Parks and Recreation Department

Mission: *Inspire Austin to learn, play, protect and connect by creating diverse programs and experiences in sustainable natural spaces and public places*

--Study of Parkland Dedication Requirements for Commercial Uses--

This Study provides an overview of parkland dedication as it pertains to retail, industrial, and office uses, as directed by City Council in Resolution No. 20220407-042, passed unanimously on April 7, 2022. This Study, produced by the Parks and Recreation Department, outlines the applicability of creating a new Ordinance to require Parkland Dedication for commercial developments, and outlines the methodology behind such an Ordinance.

This Study may be used as the basis for creating a Parkland Dedication Commercial Ordinance, for review and approval by City Council after a public and stakeholder engagement process.

Purpose

Parkland is an essential city service that affords well documented economic, recreational, physical, and mental health benefits to its users. The current Parkland Dedication Ordinance is a critical tool that allows the Parks and Recreation Department (The Department) to provide park service for the people of Austin in accordance with goals and mandates set forth in the City Charter, City Council Resolution 20091119-068, Imagine Austin Comprehensive Plan, and the PARD Long Range Plan. Parks provide recreational opportunities, create community, preserve the city's character and natural resources, contribute to economic growth and tourism, increase transportation opportunities, and keep Austin beautiful. Parkland dedication requires new developments to adhere to the Imagine Austin Comprehensive Plan's key goal of "Preserving Livability" by providing sufficient ample parkland in a rapidly densifying urban center and growing metropolitan area.

On February 25, 2020, the Parks and Recreation Board passed Recommendation 20200225-B3, which included the provision that commercial developments be subject to parkland dedication requirements. On March 28, 2022, the Parks and Recreation Board reaffirmed its support to require parkland dedication for office, retail, and industrial developments in Recommendation 20220328-B5. Enacting this provision would better provide parkland to Austin's growing workforce; currently, 58% of the workforce¹ commutes from outside the city limits, and as such is not served by the existing Parkland Dedication Ordinance for residential and hotel/motel developments.

Parkland dedication is paramount to fulfilling City Council Resolution 20091119-068, which establishes the goal that all residents be within walking distance of a park. This goal is defined by a park service area of ¼ mile walking distance in the urban core and ½ mile walking distance outside the urban core. The Department can currently expand access to parks and increase its service area through the existing Parkland Dedication Ordinance, requiring dedication or fee-in-lieu for all residential and hotel/motel uses in the City's planning jurisdiction.

¹ ACS 5-Year Estimates. Estimate of Total Jobs and place of work and place of residence from U.S. Census LEHD OnTheMap, (2019)

Currently, office, retail, and industrial developments located in park deficient areas, along greenbelts, or adjacent to parks are not subject to the existing Parkland Dedication Ordinance. The Department is not able to close critical gaps in green space and trail infrastructure without negotiating the purchase of land on these types of development sites from willing sellers, even for the sections of the sites that are otherwise undevelopable. Enacting a new Parkland Dedication Ordinance to include office, retail, and industrial developments would have the dual benefit of closing critical gaps to expand park service in accordance with the above-mentioned Council Resolution; as well as address the impact of the commercial occupants on the parks system.

Parkland dedication has been proven to address many of the goals outlined in the Imagine Austin Comprehensive Plan adopted by City Council in 2012². For example, park trails and greenbelts acquired through the Parkland Dedication Ordinance expand multi-modal access to transportation across the city, in accordance with the goal of “Expanding Transportation Choices” in Austin. “Tackling the Ethnic Divide”, another goal outlined in Imagine Austin, is addressed through parkland by providing relief from urban life, green space to those who do not have access to a yard, opportunities to gather and recreate, and numerous physical and mental health benefits in historically underserved communities. Over the last 20 years, nearly 80% of the Department’s investment through land acquisition and parkland development has been in the Eastern Crescent, a collection of economically and socially underserved neighborhoods along the eastern borders of the city. Furthermore, parkland dedication aids in “Protecting Our Natural Resources”. and the numerous services they provide by preserving necessary green spaces, natural habitats, creeks, and other environmental features in perpetuity through State law and City Charter protections. Parkland acquired through parkland dedication promotes “Prosperity for All” by helping to attract high-tech industries, creative professionals, and local entrepreneurs, ensuring Austin continues to experience job growth and economic opportunities for its residents.

The PARD Long Range Plan provides a roadmap for park planning throughout the Austin parks system. The Long Range Plan identified parkland dedication as an essential tool to expand the parks system. Community stakeholders identified trails as a number one priority for park planning and development initiatives. Critical gaps in Austin’s recreational and transportation trail networks continue to be addressed through the existing Parkland Dedication Ordinance for residential and hotel/motel site development permits. However, a new ordinance enacting a parkland dedication requirement for office, retail, and industrial developments could further address these critical gaps and complete Austin’s trail infrastructure

² AUSTIN, TX., Image Austin Comprehensive Plan. (2012).

Applicability

Currently, the Parkland Dedication Ordinance requires dedication or fee-in-lieu for new residential and hotel/motel developments, as parks are necessary for the well-being of the future occupants of the new development. Public parks are also necessary for the well-being of the City's workforce and commerce, and as such, new commercial developments do create a need for additional parkland in order to serve future occupants of the commercial spaces. New commercial developments bring additional employees, clients, and consumers that use the City's parks, thereby establishing an essential nexus³ between parkland dedication requirements and commercial development. Per the latest Census information, 58 percent of the City's workforce⁴ commutes into Austin, adding park users that do not factor into the City of Austin's current parkland dedication requirements⁵.

A Core Principle of the Imagine Austin Comprehensive Plan is to "integrate nature into the city", which has "an increased need for parks" as "we grow into a more compact city". One of the growth tenets to accomplishing this is to "provide parks and open space close to where people live, work and play." Currently, Austin's parkland dedication ordinance accounts for where people live, but not where they work and play - the impact of commercial developments. In downtown Austin alone, there are 14,000 residents, but 96,000 employees that enjoy its parks (as of 2020). Those employees are not currently accounted-for in the Parkland Dedication Ordinance.

Establishing An Essential Nexus and Rough Proportionality

In accordance with U.S. case law, a "city may enact reasonable regulations to promote the health, safety, and general welfare of its people"⁶. In accordance with *Berman v. Parker* U.S. Supreme Court case (1954), the concept of public welfare has broad range, which has since generally included the need for parks⁷. Numerous cases in the U.S. have upheld that parkland dedication is a reasonable regulation that is substantially related to the needs of a community. To demonstrate the reasonableness and substantial relation of the regulation, parkland dedication requirements must establish an "essential nexus" and "rough proportionality", so as to comply with case law in the United States.

The concepts of essential nexus and rough proportionality were established in the *Nollan* and *Dolan* decisions, respectively, in which the U.S. Supreme Court held that the regulation of land use does not equate to a taking of property if the regulation substantially advances a legitimate governmental interest and is reasonably related to the need created by the development. The two cases, *Nollan v. California Coastal Commission* and *Dolan v. City of Tigard*, established the two-prong 'nexus test' for evaluating land use ordinances requiring any form of fee or land dedication. In *Nollan v. California Coastal Commission*, the Court held that constitutionality is satisfied through

³ Consistent with U.S. Supreme Court decision *Nollan v. California Coastal Commission*, 483 U.S. 825

⁴ ACS 5-Year Estimates. Estimate of Total Jobs and place of work and place of residence from U.S. Census LEHD OnTheMap, (2019)

⁵ U.S. Census, LEHD OnTheMap 2019

⁶ *City of College Station v Turtle Rock Corporation*, 1984, 666 S.W.2d 318

⁷ *Berman v Parker*, 1954, 348 U.S. 26

demonstrating a connection between a required dedication - whether imposition of fee or conveyance of property – and a legitimate governmental interest.

From the Court’s majority opinion:

“No precise mathematical calculation is required, but the city must make some sort of individualized determination that the required dedication is related both in nature and extent to the impact of the proposed development”

The following methodology demonstrates a Parkland Dedication Ordinance for office, retail, and industrial developments promotes the health, safety, and general welfare of the community and establishes an essential nexus and a rough proportionality of parkland dedication requirements.

Methodology – Essential Nexus

Austin’s quality of life is routinely cited as an economic driver for workforce growth, and parkland plays a pivotal role in creating that high quality of life. A new Parkland Dedication Ordinance for office, retail, and industrial development would ensure that Austin stays competitive in attracting jobs nationwide by continuing the current level of service for high-quality parks, trails, natural spaces, and recreational opportunities.

In order to meet the legal requirements in the United States described in the previous section, an “essential nexus” must exist between a requirement imposed on a development and the stated police power objective of requiring development to meet the needs created by said development. Office, retail, and industrial developments increase the potential service population of the city’s park system, and therefore create a greater demand for the City’s parks services. To quote Dr. John Crompton, Texas A&M distinguished professor of parks and recreation:

“[...] commercial buildings and office spaces attract new businesses and workers to fill new jobs. The new workers need parks, so the commercial buildings contribute to growth and, therefore, should contribute to paying for the needs that growth creates. They are directly linked to creating new employment opportunities and to increasing demand for new or improved park facilities.”⁸

The National Recreation and Park Association (NRPA) has documented this relationship, stating that “quality-of-life considerations” (including those made possible by high-quality parks and recreation) play a supporting role in site-location decisions. For some companies, high-quality park amenities can be critical in their final location decisions.”⁹ As such, commercial developments do receive direct benefits in the form of parks for employees, thereby attracting, expanding, and retaining their workforces, all while creating a greater demand for parks with the growth of those workforces. By enacting a new Parkland Dedication Ordinance to create dedication requirements for

⁸ Crompton, “Parkland Dedication: Optimizing an Underutilized Resource”, 2022 p. 51

⁹ NRPA, “Promoting Parks and Recreation’s Role in Economic Development, 2018, p ii

office, retail, and industrial, developments, the City would be able to continue to provide active and passive recreational opportunities near the places of employment, thereby advancing the health, safety, and general welfare of the workforce.

Methodology – Rough Proportionality

The existing Parkland Dedication Ordinance for residential developments requires 9.4 acres of parkland per 1,000 new residents or hotel occupants, roughly proportional¹⁰ to maintaining Austin’s current level of park service. However, parkland is utilized by more than just residents and hotel occupants, with commuting workforces adding to the demand for park services. According to census data¹¹, 58% of Austin’s workforce travels in from cities and areas outside of the City’s planning jurisdiction and are not subject to the City’s current Parkland Dedication Ordinance through residential development requirements. Employees commuting into Austin have an impact on parkland that is proportionate to their relative opportunity to use park spaces and amenities. A new parkland dedication requirement should extend to office, retail, and industrial developments based on the impact of the commuting workforce, the number of people occupying commercial spaces, and amount of time the commercial spaces are occupied to proportionately address the impact of the workforce users on the city’s park system.

Estimates from the U.S. Green Building Council (USGBC) of the employees per square foot of commercial space provide a basis for establishing the impact that new retail, industrial, and office developments have on the demand for nearby parkland. This impact may be further refined by commercial occupancy rates, consistent with the current hotel/motel requirements, and typical operational hours of business and parkland. This rough proportionality and equation for accounting impact to the park system—including assumptions and parks level of service—is further expanded in the worksheet at the end of this Study.

Comparison Cities

Fewer cities currently have an established parkland dedication requirement for commercial developments, compared to those cities with a residential requirement. This Study explores the U.S. landscape for commercial parkland dedication requirements with specific metropolitan examples.

Texas

In Texas, Hutto accounts for the impact of non-residential developments on parkland by assessing a parkland development fee at a rate of \$800/acre for developments consisting of 3 or more acres¹². El Paso requires non-residential developments to meet parkland dedication requirements through payment of a fee-in-lieu, on-site land dedication, or purchase of park facilities for existing or proposed park space at the subdivision phase¹³. For fees, El Paso uses a rate of \$1,000 per acre of the non-

¹⁰ Consistent with U.S. Supreme Court decision *Dolan v. City of Tigard*, 512 U.S. 374

¹¹ ACS 5-Year Estimates. Estimate of Total Jobs and place of work and place of residence from U.S. Census LEHD OnTheMap, (2019)

¹² HUTTO, TX., City Fee Schedule, Sec. A1.005(a), Updated 9, 20, 21

¹³ EL PASO, TX., Code of Ordinances, Chapter 19.20.110(A)2.b,

residential subdivision. In the case of land dedication, park space must meet the criteria outlined in the City of El Paso's Open Space Master Plan and have a value equivalent to the fee amount required for the subdivision. The El Paso ordinance also expands on the use of any funds collected through parkland dedication for non-residential subdivisions. The ordinance stipulates that all funds must be used on the acquisition or the development of both public parkland and other recreational facilities, but not for any ongoing maintenance. Additionally, funds must be spent on a neighborhood park within the applicable park planning zone or on a community or regional park within an adjacent park zone. El Paso is in the process of updating their parkland dedication ordinance fee schedule, which has not been updated since it was passed in 2008¹⁴. Colleyville, within the Dallas-Fort Worth Metropolitan Statistical Area, established a parkland dedication requirement of 1 acre of parkland for every 56 gross acres of non-residential development¹⁵. Colleyville argues that parkland dedication helps to address the negative environmental and societal impacts of commercial developments. Similar to the El Paso ordinance, developers have the option to satisfy parkland dedication requirements through payment of fee-in-lieu, improvement to existing facilities, or through on-site land dedication.

Overall, the rough proportionality for these Texas cities may be based on the acreage of their parklands, rated against the percentage of the cities' gross acreage devoted to commercial/non-residential use. This Study focuses more on the actual impact of levels of service, like the Impact Fees observed in California, Denver, and Atlanta, and described in more detail below.

California

In California, several cities charge impact fees for parks, using an established level of service from which a fee is derived. In Sacramento, the park impact fees are derived from a maximum justifiable rate associated with the planned expansion of the city's parks system and established level of service¹⁶. Similarly, Palo Alto updated its fee schedule for fiscal year 2021 with a rate of \$5,564 per 1,000 sf of new commercial or industrial development based on an established level of service¹⁷. Belmont, CA, a mid-sized city in the Bay Area, formulated their current park service level and apportions park impact fees to commercial developments based on a service population factor¹⁸. As described in their nexus report, the demand from employees must be 'informed by assumptions about the hours of availability of park facilities and an employee's relative opportunity to access the City's park facilities.' Below are the steps outlined in the service population factor calculation:

¹⁴ Communication with Park Planner in El Paso

¹⁵ COLLEYVILLE, TX., Land Development Code, Chapter 11.5.B.2.b, 2000

¹⁶ SACRAMENTO, CA., Chapter 18.56.220

¹⁷ Palo Alto, CA. "Adopted Municipal Fee Schedule," (2022)

¹⁸ CITY OF BELMONT, CA, Economic & Planning Systems, Inc., "Park Improvement Impact Fee Nexus Study", (2020).

Service Population Factor = ((% Employees Live in the City x Park Impact Weight) + (% Employees Live Outside the City * Park Impact Weight)) / ((% Residents Not in Labor Force * Park Impact Weight) + (% Residents Employed in the City x Park Impact Weight) + (% Residents Employed Outside the City x Park Impact Weight))

% Employees and Residents commuting based on U.S. Census Bureau ACS estimates and the U.S. Census On the Map Tool

Park Impact Weight based on assumptions of relative opportunity of cohorts to use park facilities

The overall service population is then calculated by adding the total residents in the city to the employees in the city multiplied by the service population factor. Each commercial use is assigned a service population per square foot using an assumed employee density and the service population factor. Employee densities are researched estimates based on industry standards and informed by Institute of Transportation Engineers reports. A current cost per service population is calculated by an estimated cost for new park facilities based on historical acquisition and construction costs in the city. The resulting impact fees for commercial development range from \$1.27 per square foot for industrial space to \$3.16 per square foot of office space. While impact fees for parks are not allowed in Texas¹⁹, cities like Sacramento, Palo Alto, and Belmont do set a precedent for establishing a relationship between parkland and commercial development, and offer a framework for measuring its impact on parkland in order to assess proportional requirements.

Denver, Colorado

Denver, Colorado imposes development impact fees for new residential and non-residential development in the Gateway District of the city²⁰. As stated in the ordinance, these fees are intended to counteract new development's 'new, increased and excessive demands on city public facilities and services, including, without limitation, fire protection, roads, drainage and parks and recreation.' Subdivision regulations for the District require a 2% parkland dedication for commercial development in the area or a fee-in-lieu of dedication. The regulations, passed in 2000, established a fee-in-lieu rate of \$403 per acre for non-residential buildings with a 5% increase recalculated every three years. The fee rate is based on a rough proportionality between the cost of facilities that are attributable to new development and the overall public costs of the provision of such facilities, shifting the responsibility for financing new public facilities to entities and property owners creating the increased demand for them. Planners in Denver indicated they are currently exploring an update to their current parkland requirements, as well as applying a parkland dedication requirement city-wide²¹.

¹⁹ Texas Local Government Code Ann. Title 12, 395.001 et seq., (1987)

²⁰ DENVER, CO., Gateway Subdivision Rules and Regulations, (2020)

²¹ Communication with Denver Planners

Atlanta, Georgia

Atlanta, Georgia introduced a commercial parks impact fee in 1993²² and updated it with a fee impact study in 2021 and 3-phase implementation plan between 2021 to 2025²³. The impact fee reflects the current level of park service (LOS) across three service areas in the city. The LOS considers both land acquisition and park improvements in order to accurately assess the costs associated with maintaining and expanding a park system. The final impact fees were derived by multiplying the functional population for each land use by the net cost per functional population. The land use is broken down into residential uses at different densities (such as multifamily, single family, hotel/motel) and commercial uses broken into several categories including shopping/commercial, warehouse, public/institutional, office, industrial, warehouse and mini warehouse.

The functional population of each use was determined by a calculation that considers employees/people per unit, visitors per unit, number of hours per day of occupancy, and average daily trips (ADT) derived from various national standards including the U.S. Department of Transportation, *National Household Travel Survey*, 2009, ITE, *Trip Generation*, 10th ed., 2017 and U.S. Department of Energy, *Commercial Buildings Energy Consumption Survey*, 2012. The following formula is used to calculate the functional population for non-residential land uses:

$$\text{Functional population/unit} = (\text{employee hours}/1000 \text{ sf} + \text{visitor hours}/1000 \text{ sf}) \div 24 \text{ hours/day}$$

$$\text{Functional population/employee} = \text{functional population/unit} \div \text{employee/unit}$$

Where: Employee hours = employees x 8 hours/day

Visitor hours/1000 sf = visitors/1000 sf x 1 hour/visit

Visitors/1000 sf = weekday ADT/1000 sf x avg. vehicle occupancy – employees/1000 sf

Weekday ADT/1000 sf = one way average daily trips (total trip ends ÷ 2)

The resulting fee ranges from \$53/1,000 sq ft for mini-warehouses to \$1,202/1,000 sq feet for shopping centers/commercial uses.

Summary

Parkland dedication is meant to address the impact growth has on the City of Austin's park system. Despite increasing the demand on park facilities, commercial development is not presently included in that impact. As Austin continues to grow, so does its need for parks where people live, work and play. By including occupants of commercial spaces, Austin's parkland dedication requirement will fully account for new developments' impact on the City's park system, and better serve the Austin community consistent with the Imagine Austin Comprehensive Plan. Parkland dedication would directly benefit commerce through improved physical and mental health; increased productivity from nature and physical exercise; greater innovation through community spaces; and expanded multi-modal transportation options to and from commercial spaces. The data

²² ATLANTA, GA., Ordinance 92-O-1817, (1993)

²³ ATLANTA, GA., Ordinance 21-O-0096, (2021)

shows that in Austin 11.11 jobs are created per \$1 million of investment in off-street, multi-use trails (compared to 8.37 jobs per \$1 million of investment in sidewalks)²⁴. A new parkland dedication ordinance for office, retail, and industrial, and office development would ensure that Austin stays competitive in attracting jobs nationwide by continuing the current level of service for high-quality parks, trails, natural spaces, and recreational opportunities. This Study provides the basis for an essential nexus and rough proportionality that meet standards established in U.S. case law regarding such regulations. Requiring new commercial developments to meet the needs for parkland based on the economic and workforce growth ultimately advances a legitimate public interest and promotes the health, safety, and general welfare of the people of Austin.

²⁴ Garrett-Peltier, Heidi. "Pedestrian and Bicycle Infrastructure: A National Study of Employment Impacts", 2011, p 12.

Supplemental Worksheet for Commercial Parkland Dedication Requirements

Commercial development is divided into three distinct categories to capture the impact of each use more finely. The categories are:

- **Office:** Includes but not limited to general office use, coworking spaces, and medical offices.
- **Retail:** Includes but not limited to restaurants, retail spaces, gyms, coffee shops, bars, food service spaces, supermarkets, grocery stores, hardware stores, banks, entertainment venues, print and copy services.
- **Industrial:** Includes but not limited to industrial buildings, manufacturing warehouses, storage facilities.

Exempt: 501c3 nonprofits, governmental agencies, schools, daycare centers, hospitals, and convalescent living facilities.

Assumptions

Variables	Calculation Factor	Description
Fee In-Lieu of Land		
Parkland Level of Service	148.02 people per 1 acre	Service Population/Park Acres
Park Acres	10,084 acres	Park Acres (excludes Metro and District Parks)
City Population	1,041,722 (2022 Population)	Estimated City Population Provided by City Demographer
Commuter Workforce	450,961	Estimated commuter workforce based on 2019 proportion of commuter workforce to overall city population, Census OnTheMap
Parkland Cost Factor	\$364,643.28 per acre	Average land cost of acres purchased over the last five years excluding Metro and District Parks
Park Development Fee		
Facilities Level of Service	6,193.71 people per park	Population / Number of Developed Parks
Number of Developed Parks	241	Count of all developed parks
Park Development Cost Factor	\$1,560,349.43	Cost of developing one Neighborhood Park

A. Level of Parkland Service:

The level of service during the work week is 6.8 acres per 1,000 people. Derived from the following formula:

$$\text{Acres per 1,000 people} = \text{Park Acres} / (\text{City Population} + \text{Commuter Workforce})$$

$$6.8 \text{ acres per 1,000 people} = 10,084 \text{ acres} / (1,041,722 \text{ residents} + 450,961 \text{ commuting workforce})$$

2/2/2022	Acres of Record
Pocket	57.7065
Neighborhood	1,055.2426
School	139.4960
Greenbelt	4,715.5400
Special	570.7246
Triangles/Plantings	6.1899
Preserves	2,417.6662
Golf	1,121.8490
Total	10,084.4148

This formula adjusts the commercial PLD requirements to account for a lower level of service during the work week when the population of the city increases.

B. Fee In-lieu of Land Formula

The fee-in-lieu per person is \$2,463.47 per person. Derived from the following formula:

$$\text{Parkland Cost Factor/Parkland Level of Service} = \text{Land Cost Per Person}$$

$$\$364,643.28 \text{ per acre} / 148.02 \text{ persons per acre} = \$2,463.47 \text{ per person}$$

C. Park Development Fee Formula

The park development fee is \$251.92 per person. Derived from the following formula:

$$\text{Park Development Cost Factor/Facilities Level of Service} = \text{Development Cost Per Person}$$

$$\$1,560,349.43 \text{ neighborhood park cost} / 6,193.71 \text{ people per developed park} = \$251.92 \text{ per person}$$

Parkland Cost Factor

The parkland cost factor is \$364,643.28 per acre based on the average cost per acre of parkland in the last 5 years.

2017			
Country Club Creek	2/2/2017	1.1480	\$57,999.00
Tahoe Trail	9/27/2017	0.3080	\$13,022.68
2018			
Southern Walnut Creek addition	9/7/2018		
Scenic Brook	9/25/2018		
North Star	9/20/2018		
didn't include 2018 because all were donations or PLD dedications			

2019			
Little Walnut Creek Greenbelt	4/16/2019	0.2220	\$185,000.00
Brook Crest	6/12/2019	9.0400	\$279,626.60
2020			
Country Club Creek Addition	4/24/2020	3.6950	\$251,483.00
Georgian Pocket Park	8/19/2020	0.7000	\$226,948.00
Georgian Pocket Park	8/21/2020	0.2571	\$360,902.00
Theckla Pocket Park	12/28/2020	0.1920	\$106,000.00
Upper Little Walnut Creet	10/23/2020	7.2581	\$1,485,500.00
Williamson Creek Greenbelt East	6/19/2020	6.5100	\$183,195.00
Williamson Creek Greenbelt West	9/28/2020	2.6600	\$1,286,353.00
Wood Street Settlement Pocket Park	12/7/2020	0.2146	\$1,166,686.00
2021			
Clawson Neighborhood Park	4/7/2021	3.0154	\$2,301,605.50
College Row Pocket Park	1/29/2021	0.6303	\$2,211,501.00
Cooper Neighborhood Park	2/5/2021	4.9570	\$2,313,081.49
Hill County View Neighborhood Park	1/22/2021	3.2889	\$431,223.80
Jamestown Neighborhood Park	11/19/2021	2.8485	\$3,237,668.60
Mocassin Neighborhood Park	12/20/2021	5.3760	\$781,505.86
Poquito Creek Greenbelt	4/26/2021	0.1779	\$449,351.64
Texas Oaks Neighborhood Park	9/17/2021	4.2000	\$4,224,288.80
Upper Bull Creek Greenbelt	7/27/2021	10.0000	\$2,768,327.50
TOTAL		66.6988	\$24,321,269.47
AVERAGE ACRE COST			\$364,643.28

Park Development Cost Factor

The park development cost factor is \$1,560,349.43 based on the average cost of development of the last 5 neighborhood parks.

Park	Cost	Acres
Del Curto	\$970,179.00	2.0840
Copperfield	\$1,010,262.00	4.6200
Little Stacy	\$1,206,416.91	6.7793
Georgian Acres	\$944,952.85	4.9970
Duncan Neighborhood Park	\$1,888,522.00	5.9100
Highland	\$1,580,705.00	5.2983
Brownie	\$1,699,941.00	7.4157
Oertli	\$1,687,626.32	6.0000
Georgian Acres to Oertli (Last 5)	\$7,801,747.17	30.4003
Average cost of last 5 Developed Park	\$1,560,349.43	

Commercial Usage Occupancy

The commercial usage occupancy is a combination of factors that account for the time commercial developments are occupied and impacting the park system. Factors include Business Operation Hours, City-wide occupancy/vacancy rate of commercial spaces.

Business and Parkland Operation Hours:

Commercial activity varies by use:

Office use occurs 5 out of 7 days of the week, and 8 hours a day, 23.8 percent (40 hours out of 168 hours a week) operation occupancy.

Retail use occurs 7 days of the week, and an average of 9 hours a day for operation. This is equal to 37.5 percent (63 hours out of 168 hours a week) operation occupancy.

Industrial use occurs 24 hours every day of the week, equal to 100 percent, in part due to the Just-in-Time delivery models that has overtaken this sector. Generally, park space is open for use by the public from 5 am to 10 pm, and so the operations hours are capped at 71 percent.

Occupancy Rates

Commercial spaces occupancy (leased and not vacant) ranges between 92 and 95 percent in the Austin market depending on the use category. Occupancy by use below:

- Office: 92% ¹
- Retail 95% ²
- Industrial: 94% ¹

¹ Austin area occupancy rates for office and warehouse/industrial derived from the Chamber of Commerce 'Austin Area Profile' reflecting occupancy by use in Q2 2021

² Retail occupancy based on NAI Partners report published in Q2 2021

Occupants By Use

Conservative estimates from the U.S. Green Building Council put the square feet per person in commercial spaces at the following:

- Office: 300 sq ft / person
- Retail: 550 sq ft / person
- Industrial: 2,500 sq ft / person

Formulas By Use

The parkland requirements for office, retail, and industrial can be calculated with the following formulas:

General Formula:

Functional Population -

$$\text{Functional Population} = (A / B) * C * D$$

A = Sq ft of development

B = Employee Density for Use Class

C = Occupancy of Use Class

D = Assumed Operation Hours of Use Class

Fees -

$$\text{Fee-In-Lieu} = \text{Functional Population} * \$2,463.47$$

$$\text{Development Fee} = \text{Functional Population} * \$251.00$$

Land -

$$\text{Land Owed (Acres)} = (\text{Functional Population}/1000) * 6.8$$

Office:

Sq ft of office/300 sq ft/person X 0.92 occupancy X 0.238 operations hours = # of People

People x (\$2,463.47 FIL + \$251.00 DEV) = Parkland dedication fees

Retail:

Sq ft of retail/550 sq ft/person X .95 occupancy X 0.375 operations hours = # of People

People x (\$2,463.47 FIL + \$251.00 DEV) = Parkland dedication fees

Industrial:

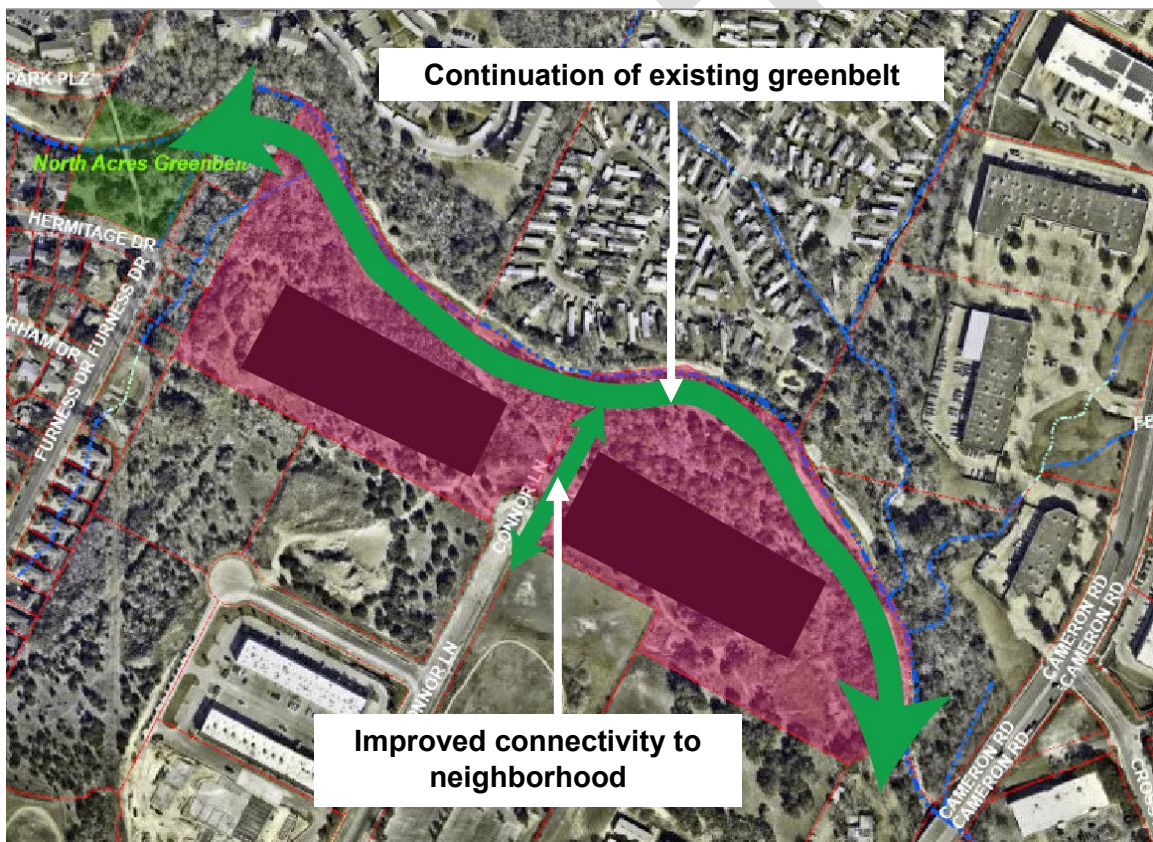
Sq ft of warehouse/2,500 sq ft/person X 0.94 occupancy X 71 operation hours = # of people

People x (\$2,463.47 FIL + \$251.92 DEV) = Parkland dedication fees

Example Industrial: Suburban Warehouse

Total SF	SF/Employee	Occupancy	Operation Hours	Functional Population
200,000	2,500	94%	71%	53.39
<i>A</i>	<i>B</i>	<i>C</i>	<i>D</i>	<i>Formula = (A/B) * C * D</i>

Land Owed (acres)	Fee-In-Lieu	Development Fee
0.36 acres	\$131,530	\$13,450.51
<i>Formula = (Functional/1000) * 6.8</i>	<i>Formula = Functional Population * \$2,463.47</i>	<i>Formula = Functional Population * \$251.92</i>

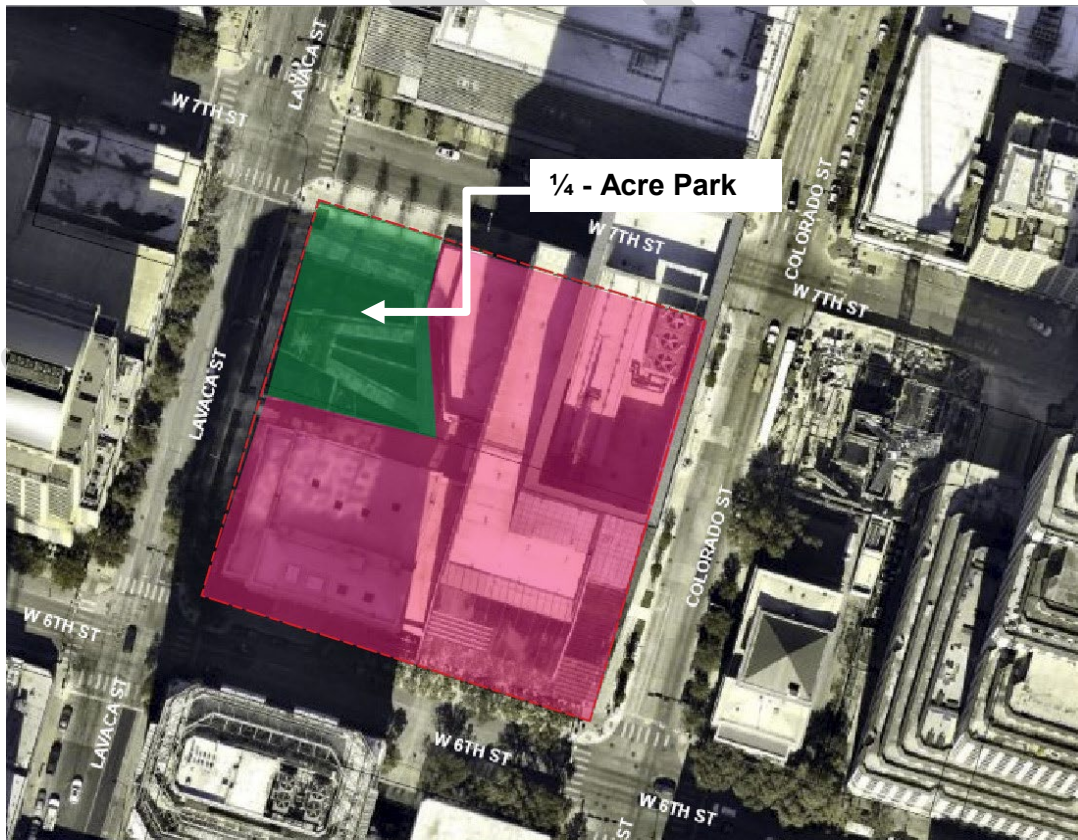


Example Office: Downtown Office

Total SF	SF/Employee	Occupancy	Operation Hours	Functional Population
665,000	300	92%	24%	489.44
<i>A</i>	<i>B</i>	<i>C</i>	<i>D</i>	<i>Formula = (A/B) * C * D</i>

Land Owed	Fee-In-Lieu	Development Fee
3.30 acres	\$1,195,673	\$122,272.23
<i>Formula = (Functional Population/1000) * 6.8</i>	<i>Formula = Functional Population * \$2,461.47</i>	<i>Formula = Functional Population * \$251.92</i>

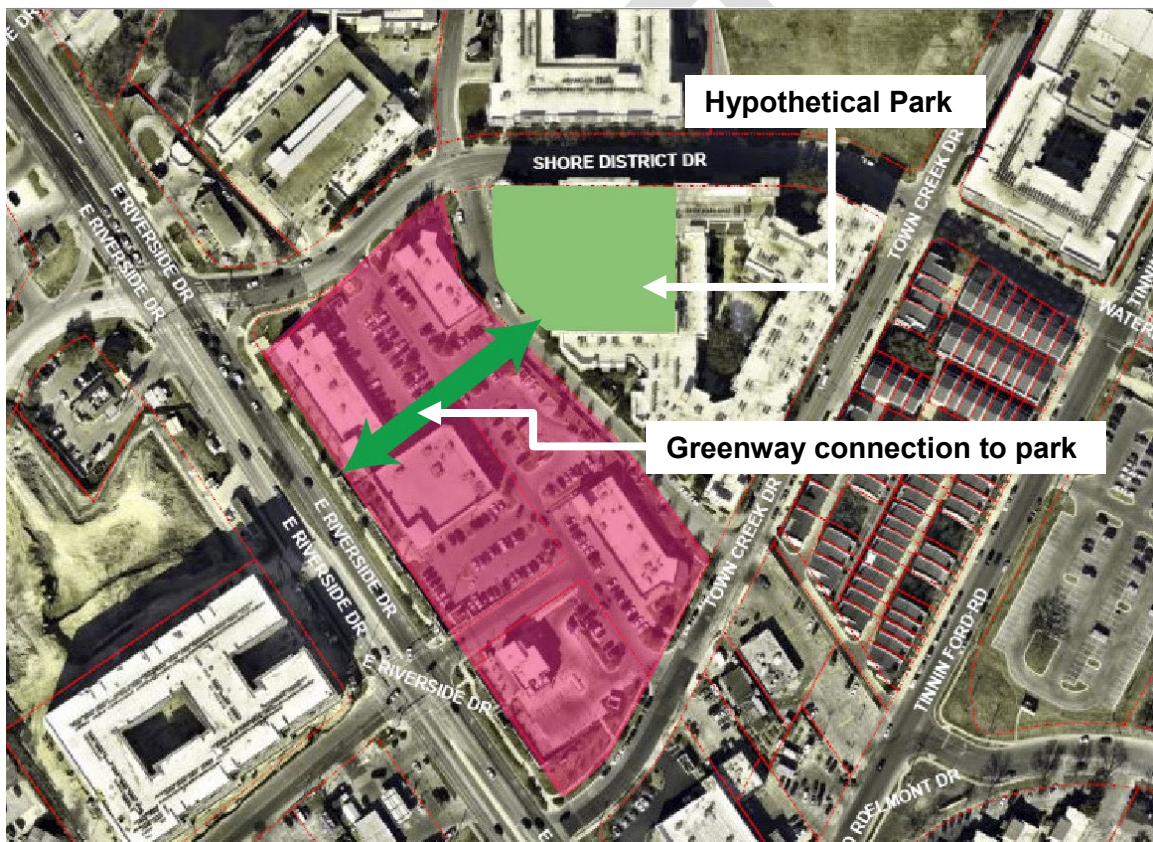
15% Land Cap
0.26
<i>Urban Core Land Dedication Limit</i>



Example Retail: Corridor Retail

Total SF	SF/Employee	Occupancy	Operation Hours	Functional Population
50,000	550	95%	38%	32.39
<i>A</i>	<i>B</i>	<i>C</i>	<i>D</i>	<i>Formula = (A/B) * C * D</i>

Land Owed	Fee-In-Lieu	Development Fee
0.22 acres	\$74,144	\$8,158.77
<i>Formula = (Functional Population/1000) * 6.8</i>	<i>Formula = Functional Population * \$2,461.47</i>	<i>Formula = Functional Population * \$251.92</i>



Example Vertical Mixed-Use: Infill Office and Multifamily

Office:

Total SF	SF/Employee	Occupancy	Operation Hours	Functional Population
136,086	300	92%	23.80%	99.32
<i>A</i>	<i>B</i>	<i>C</i>	<i>D</i>	<i>Formula = (A/B) * C * D</i>

Commercial Land Owed	Commercial Fee-In-Lieu	Commercial Development Fee
0.68 acres	\$244,683	\$25,021.86
<i>Formula = (Functional Population/1000) * 6.8</i>	<i>Formula = Functional Population * \$2,463.47</i>	<i>Formula = Functional Population * \$251.92</i>

Residential:

Total Units	SMART Units	Acres	Units/Acre
309	0	3.88	79.64

Residential Land Owed	Residential Fee-In-Lieu	Residential Development Fee
4.94 acres	\$899,861	\$162,685.41
<i>Formula = (Units * 1.7 * 9.4) / 1000</i>	<i>Formula = Units * \$2,912.17</i>	<i>Formula = Units * \$526.49</i>

15% Land Cap
0.58
<i>Urban Core Land Dedication Limit</i>

