



LAND USE ASSUMPTIONS FOR STREET IMPACT FEES SUMMARY

A. Introduction and Purpose

Impact Fees are a mechanism for funding the public infrastructure necessitated by growth. In the most basic terms, impact fees are meant to recover the incremental cost of the impact of each new unit of development growth creating new infrastructure needs. In the case of Street Impact Fees, the infrastructure need is increased capacity on the street network. The purpose of the Street Impact Fee Study is to identify the fee per unit of new development necessary to fund these improvements in accordance with the enabling legislation, Chapter 395 of the Texas Local Government Code.

In order to assess an impact fee, Land Use Assumptions must be developed to provide the basis for residential and employment growth projections within a municipality. As defined by Chapter 395 of the Texas Local Government Code, these assumptions include a description of changes in land uses, densities, and development in the service area. The land use assumptions are then used in determining the need and timing of transportation improvements to serve future development.

This report documents the process used to develop the Land Use Assumptions for the City of Austin's Street Impact Fee (SIF) study. In accordance with Chapter 395 of the Texas Local Government Code, street impact fees must be calculated based on reasonable expectations of residential and employment growth within the next ten years (2017 – 2027).



B. Overview

This Land Use Assumptions Summary includes the following components:

- **Land Use Assumptions Methodology** – An overview of the general methodology used to generate the land use assumptions.
- **Street Impact Fee Service Areas** – Explanation of the division of Austin into service areas for street and infrastructure facilities.
- **Residential and Employment Growth** – Data on residential and employment growth within the service area over the next ten years (2017 – 2027).
- **Land Use Assumptions Summary Table** – A synopsis of the Land Use Assumptions.

Information from the following sources was compiled to complete the Land Use Assumptions:

- Imagine Austin Comprehensive Plan Growth Concept Map (Center and Corridors)
- City of Austin's Future Land Use Map (FLUM)
- Travis and Williamson County Appraisal Districts
- City of Austin 2014 Land Use Inventory; Multi-Family Inventory; and Affordable Housing Inventory
- 2009 – 2016 City of Austin Building Permit Data
- City of Austin staff including City Demographer
- City of Austin Water and Wastewater Impact Fee 2015-2025 Land Use Assumptions
- CAMPO 2040 Plan
- Longitudinal Employer Household Dynamics Employment Data
- State of Texas Master Facilities Plan Report



C. Land Use Assumptions Methodology

The residential and non-residential growth projections formulated in this report were performed using reasonable and generally accepted planning principles. The following factors were considered in developing these projections:

- Character, type, density, and quantity of existing development;
- Emerging Projects;
- Future Land Use Map and Imagine Austin Growth Concept Map;
- Growth trends;
- Location of vacant land;
- Physical restrictions (i.e. flood plains, railroads); and
- Carrying Capacity (Growth Potential) of the City of Austin.

The residential and employment estimates and projections were compiled in accordance with the following categories:

Units: Number of dwelling units, both single and multi-family.

Employment: Square feet of building area based on three (3) different classifications. Each classification has unique trip making characteristics.

Retail: Land use activities which provide for the retail sale of goods which primarily serve households and whose location choice is oriented toward the household sector, such as grocery stores and restaurants (higher traffic generators).

Service: Land use activities which provide personal and professional services, such as government and other professional offices (medium traffic generators).

Basic: Land use activities that produce goods and services such as those which are exported outside of the local economy, such as manufacturing, construction, transportation, wholesale, trade, warehousing, and other industrial uses (lower traffic generators).



The above categories in the Land Use Assumptions match those used to develop travel demand modeling and are the broader land use categories that are used in the development of the assumptions for impact fees. In the calculation of the specific Street Impact Fee, a more specific and expanded classification based on the Institute of Transportation Engineers (ITE) Trip Generation Manual will be utilized.

Determination of ten-year growth within the Street Impact Fee study area was accomplished through three general steps:

- **Step 1: Determine Base Year (2017)**
- **Step 2: Determine Carrying Capacity (Growth Potential)**
- **Step 3: Determine 10-Year Growth Projections**

Step 1: Determine Base Year (2017)

Property data obtained from Travis and Williamson County Appraisal Districts (CADs) was used to determine the 2015 residential units and employment square footage. This data contained detailed information on the following property attributes:

- Built year
- Land area
- Livable building square footage
- Property land use
- Improvement type (Travis CAD only)

For single-family residential units, the number of units were simply counted. For multi-family, the number of units was derived from the multi-family inventory. However, if data was not available through the inventory, a density calculation was performed based on the Appraisal District's livable building square footage. A conversion of square footage per unit was utilized to determine the number of units.

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To estimate employment square footage, the livable building square footage data was utilized. Building footprint data and aerials were utilized to supplement the building square footage if the CAD data lacked square footage information. Finally, for state facilities, building square footage came from the State's Master Facilities Plan Report.

These estimates for 2015 were scaled up to 2017 using building permit data, adding units/square footage for new construction and subtracting demolished units/square footage for parcels as needed.

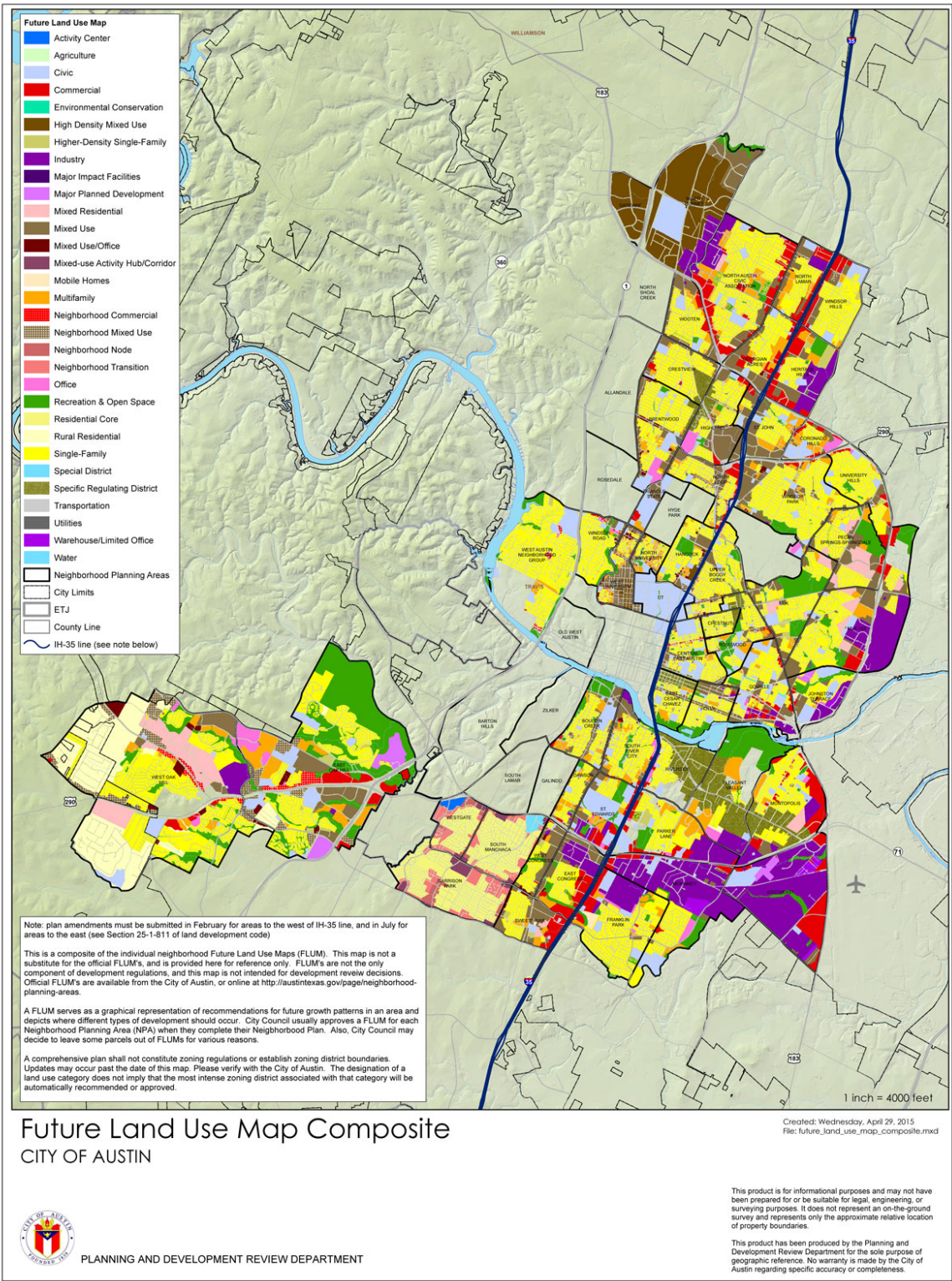
Step 2: Determine Carrying Capacity (Growth Potential)

For the remaining undeveloped areas, assumptions based upon the City's Future Land Use Map (**Exhibit 1**), Emerging Projects (**Exhibit 2**), or Imagine Austin Growth Concept Map were used to estimate the carrying capacity or growth potential of land within the Street Impact Fee study area for both residential and employment land uses. The carrying capacity was calculated in three basic steps.

- 1) Determine the future land use for study area parcels based on previous planning efforts completed by the City.
- 2) Determine the amount of dwelling units and employment building space that could occupy every parcel – i.e. the parcel's "Carrying Capacity" – based on the future land use development types.
- 3) Identify parcels that are either vacant or candidates for redevelopment and aggregate those parcels' carrying capacity with the existing dwelling units and employment space on the remaining parcels to generate an estimated growth potential to compare to the 10-year growth forecast.



Exhibit 1 – Future Land Use Map



*Data provided by City of Austin

Emerging Project Types

- Retail
- Civic
- Industrial
- Commercial
- PUD
- Residential
- Mixed-Use

Emerging Projects

Service Areas

0 1.5 3 6 Miles



Step 3: Determine 10-Year Growth Projections

The City of Austin utilizes small areas called DTI-polygons to allocate growth. The DTI (**D**elphi, **T**rends, and **I**mage Austin) polygons are roughly analogous to census tracts.

The City of Austin provided 2025 employment (job) and dwelling unit projections that were generated for the Water/Wastewater Impact Fee land use study for DTI polygons within the city. Dwelling unit and employment growth rates were calculated based on the DTI polygon dwelling unit and employment projections. Growth rates for employment were converted to square footage using typical figures for employees per 1,000 square feet for each employment type. The growth rates were then applied to the 2017 base year estimates and projected 10 years into the future to 2027. Finally, the 2027 projections were compared to the carrying capacity growth potential to validate the 10-year growth assumptions.



D. Street Impact Fee Service Areas

The geographic boundary of the proposed impact fee service areas for transportation facilities is shown in **Exhibit 3**. The City of Austin is divided into seventeen (17) service areas, each based upon the six (6) mile limit, as required in Chapter 395. For transportation facilities, the service areas as required by state law are limited to areas within the current corporate City limits. In defining the Service Area boundaries, the project team considered the corporate boundary, required six (6) mile size limit, adjacent land uses, and topography. In addition, the strategy for defining Service Areas included creating a Downtown area and creating distinctive inner loop and outer loop Service Areas based on highway boundaries. Since each Service Area will have a unique maximum impact fee, the per-unit maximum fee for an identical land use will vary from one Service Area to the next. For this reason, the team kept areas of uniform land use within the same Service Area where possible.

It should be noted that at locations where Service Area boundaries align with a City roadway, the proposed boundary is intended to follow the centerline of the street, unless otherwise noted. In cases where a Service Area boundary follows the City Limits, only those portions of the transportation facility within the City Limits are included in the Service Area.

Exhibit 3 – Proposed Service Areas

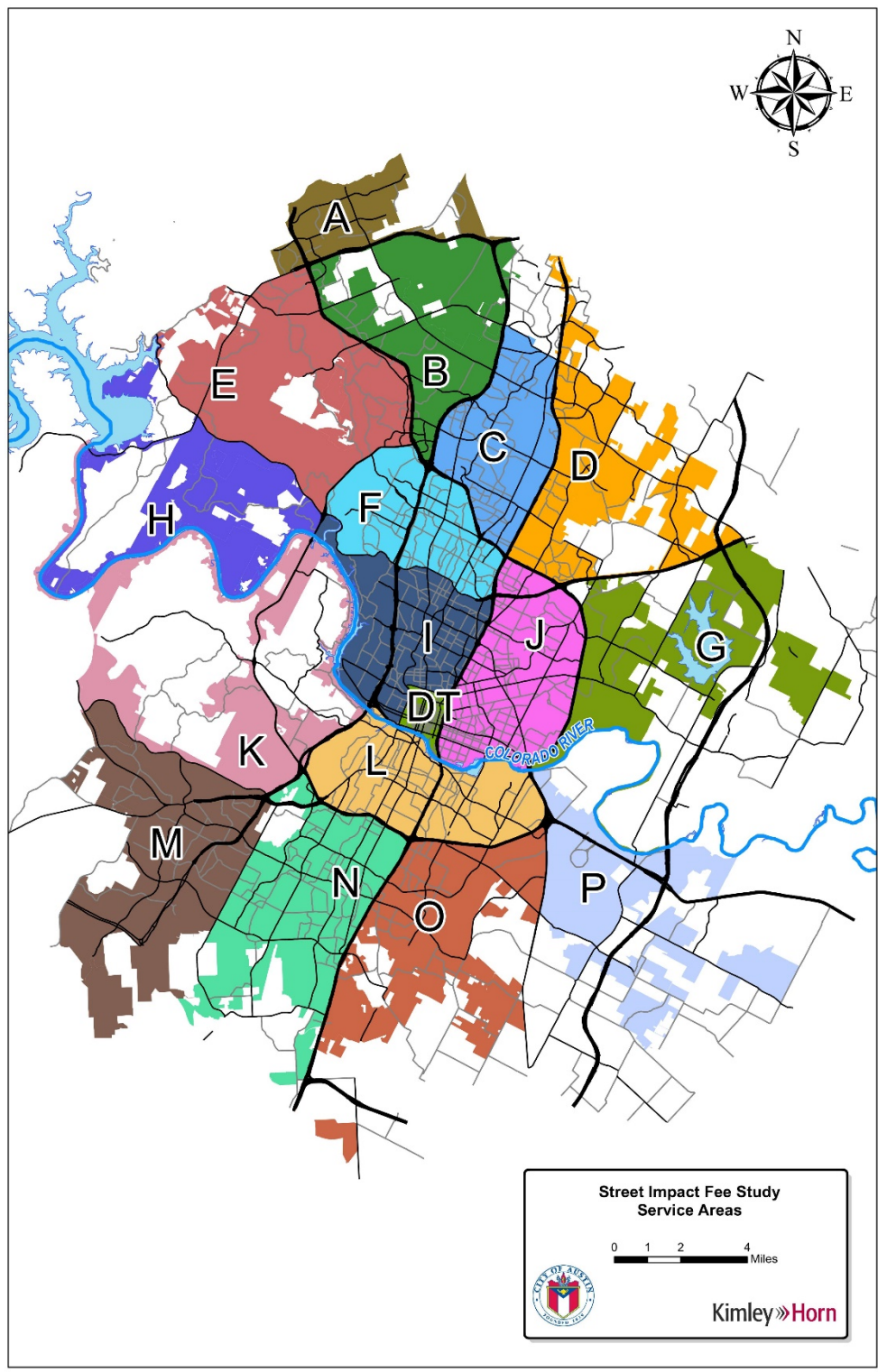


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E. Land Use Assumptions Summary

Table 1 summarizes the residential and employment 10-year growth projections.

Service Area		Dwelling Units			Employment (SqFt)			
		Single Family	Multi-Family	Total	Basic	Service	Retail	Total
City	2017	179,259	224,030	403,289	72,017,000	125,112,000	79,359,000	276,488,000
	2027	212,913	315,313	528,226	84,503,000	158,956,000	109,182,000	352,641,000
	10-Year Growth	33,654	91,283	124,937	12,486,000	33,844,000	29,823,000	76,153,000
A	2017	4,876	5,380	10,256	52,000	1,358,000	3,220,000	4,630,000
	2027	5,645	10,211	15,856	79,000	2,814,000	4,669,000	7,562,000
	10-Year Growth	769	4,831	5,600	27,000	1,456,000	1,449,000	2,932,000
B	2017	7,556	15,272	22,828	5,365,000	7,829,000	4,852,000	18,046,000
	2027	9,743	23,294	33,037	6,141,000	9,011,000	7,208,000	22,360,000
	10-Year Growth	2,187	8,022	10,209	776,000	1,182,000	2,356,000	4,314,000
C	2017	10,743	23,932	34,675	13,556,000	8,192,000	11,651,000	33,399,000
	2027	11,384	29,245	40,629	13,745,000	10,442,000	13,212,000	37,399,000
	10-Year Growth	641	5,313	5,954	189,000	2,250,000	1,561,000	4,000,000
D	2017	9,909	10,930	20,839	16,863,000	8,339,000	3,925,000	29,127,000
	2027	15,456	16,013	31,469	22,140,000	11,633,000	6,899,000	40,672,000
	10-Year Growth	5,547	5,083	10,630	5,277,000	3,294,000	2,974,000	11,545,000
E	2017	14,944	13,744	28,688	3,046,000	6,283,000	4,523,000	13,852,000
	2027	16,753	18,234	34,987	3,135,000	7,243,000	5,444,000	15,822,000
	10-Year Growth	1,809	4,490	6,299	89,000	960,000	921,000	1,970,000
F	2017	14,467	13,954	28,421	1,514,000	10,986,000	8,725,000	21,225,000
	2027	14,803	19,534	34,336	1,751,000	12,518,000	10,121,000	24,390,000
	10-Year Growth	336	5,580	5,915	237,000	1,532,000	1,396,000	3,165,000
G	2017	3,516	1,222	4,738	4,042,000	848,000	144,000	5,034,000
	2027	9,147	5,971	15,118	5,702,000	4,357,000	2,110,000	12,169,000
	10-Year Growth	5,631	4,749	10,380	1,660,000	3,509,000	1,966,000	7,135,000
H	2017	2,937	1,520	4,457	27,000	2,266,000	129,000	2,422,000
	2027	3,603	2,204	5,807	16,000	3,721,000	133,000	3,870,000
	10-Year Growth	666	684	1,350	(11,000)	1,455,000	4,000	1,448,000
I	2017	13,769	27,721	41,490	348,000	14,213,000	5,855,000	20,416,000
	2027	14,481	35,710	50,191	395,000	15,550,000	7,260,000	23,205,000
	10-Year Growth	712	7,989	8,701	47,000	1,337,000	1,405,000	2,789,000

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Service Area		Dwelling Units			Employment (SqFt)			
		Single Family	Multi-Family	Total	Basic	Service	Retail	Total
J	2017	18,145	19,619	37,764	5,065,000	9,174,000	6,174,000	20,413,000
	2027	20,861	29,539	50,399	5,182,000	10,171,000	7,333,000	22,686,000
	10-Year Growth	2,716	9,920	12,635	117,000	997,000	1,159,000	2,273,000
K	2017	6,091	3,191	9,282	28,000	4,973,000	2,130,000	7,131,000
	2027	6,711	3,925	10,636	47,000	5,299,000	2,405,000	7,751,000
	10-Year Growth	620	734	1,354	19,000	326,000	275,000	620,000
L	2017	10,644	39,842	50,486	4,551,000	11,539,000	6,109,000	22,199,000
	2027	11,619	50,564	62,183	4,933,000	13,391,000	7,650,000	25,974,000
	10-Year Growth	975	10,722	11,697	382,000	1,852,000	1,541,000	3,775,000
M	2017	18,359	9,573	27,932	2,086,000	5,133,000	2,940,000	10,159,000
	2027	20,981	14,216	35,197	2,634,000	7,029,000	4,990,000	14,653,000
	10-Year Growth	2,622	4,643	7,265	548,000	1,896,000	2,050,000	4,494,000
N	2017	27,160	19,860	47,020	3,172,000	3,799,000	8,412,000	15,383,000
	2027	28,806	26,926	55,732	3,413,000	7,390,000	11,202,000	22,005,000
	10-Year Growth	1,646	7,066	8,712	241,000	3,591,000	2,790,000	6,622,000
O	2017	12,347	8,655	21,002	11,772,000	3,679,000	3,065,000	18,516,000
	2027	16,239	13,918	30,157	13,296,000	3,879,000	7,068,000	24,243,000
	10-Year Growth	3,892	5,263	9,155	1,524,000	200,000	4,003,000	5,727,000
P	2017	3,686	224	3,910	252,000	788,000	316,000	1,356,000
	2027	6,587	2,623	9,210	1,642,000	1,794,000	3,043,000	6,479,000
	10-Year Growth	2,901	2,399	5,300	1,390,000	1,006,000	2,727,000	5,123,000
DT	2017	110	9,391	9,501	278,000	25,713,000	7,189,000	33,180,000
	2027	95	13,188	13,283	252,000	32,714,000	8,435,000	41,401,000
	10-Year Growth	(15)	3,797	3,782	(26,000)	7,001,000	1,246,000	8,221,000

F. Contact Information and Website

For More Information:

<https://www.austintexas.gov/streetimpactfee>

Contact:

Marissa Monroy | Public Information & Marketing Manager
 Austin Transportation Department
 Office: (512) 974-6584 | Cell: (915) 355-5854
marissa.monroy@austintexas.gov