

Public Safety Land Use Assumptions



City of Las Cruces®

City of Las Cruces – Public Safety Impact Fee Update

Land Use Assumptions

Introduction

Impact fees are one-time fees paid by new development to fund the facilities need to serve that development. The demand for public safety facilities is based on the service population housed in dwelling units or nonresidential development creating the need for the facilities. Consequently, every impact fee study must quantify existing and future demand for facilities to properly identify the share of facilities attributable to new development and calculate impact fees for each unit of new development.

The New Mexico Impact Fee Statues require that these estimates of demand for facilities, referred to as “land use assumptions” be adopted prior to a jurisdiction developing a capital improvement plan and subsequently an impact fee analysis (often referred to as a “nexus study”). The service area for this impact fee is the City of Las Cruces.

This memorandum documents the land use assumptions for the City of Las Cruces’ Public Safety Facilities Impact Fee Update Study in terms of existing and projected population, employment, and residential dwelling units. It also summarizes an analysis of residential and nonresidential occupant densities, which are needed to translate the cost of facilities per capita into a fee per unit of new development.

Growth Projections

Table 1 displays annual projections of residents, dwelling units, and employment. The table also shows the assumed average residents per dwelling unit. The estimate of residents in 2020 comes from the decennial US Census and is current as of April 1, 2020. The annual increase in both residents and dwelling units assumes annual increase of 1.2%, consistent with the growth projections identified in *Elevate Las Cruces Comprehensive Plan Volume III: Scenario Planning Initiative*. Residents per dwelling unit are calculated based on the estimates of residents and dwelling units for a given year. It is assumed that the average housing density in Las Cruces will remain constant through out the 10-year planning horizon of this study.

For the purposes of the impact fee study, employment refers to primary jobs located within the City limits. The estimates of primary employment in Las Cruces come from U.S. Census Bureau’s, OnTheMap Application, 2019. Estimates of employment for 2020 are not yet available, so the 2019 estimates were adjusted to 2020, and for each subsequent year using an assumed 0.7% annual growth rate. This assumed annual employment growth rate was identified in *Elevate Las Cruces Comprehensive Plan Volume III: Scenario Planning Initiative*.

Table 1: Annual Projections of Residents, Dwelling Units and Employment

Year	Residents ¹	Dwelling Units ²	Residents per DU ³	Employment ⁴
2020	111,385	45,792	2.43	44,712
2021	112,722	46,342	2.43	45,025
2022	114,074	46,898	2.43	45,340
2023	115,443	47,460	2.43	45,658
2024	116,828	48,030	2.43	45,977
2025	118,230	48,606	2.43	46,299
2026	119,649	49,190	2.43	46,623
2027	121,085	49,780	2.43	46,949
2028	122,538	50,377	2.43	47,278
2029	124,008	50,982	2.43	47,609
2030	125,497	51,593	2.43	47,942
Net Increase (2020 to 2030)	14,112	5,801		3,230

¹ Estimate of residents in 2020 from US Census. Assumes annual population increase of 1.2% based on Figure 3.2 from Elevate Las Cruces Comprehensive Plan Volume III: Scenario Planning Initiative.

² The American Community Survey reports 45,249 dwelling units as of 2019. Figure adjusted to 2020 using assumed 1.2% annual growth rate.

³ Average residents per dwelling unit across all types of dwelling units.

⁴ Estimates of employment in Las Cruces from U.S. Census Bureau, OnTheMap Application, 2019, adjusted to 2020 using assumed 0.7% annual growth rate. Annual employment increase of 0.7% based on Figure 3.2 from Elevate Las Cruces Comprehensive Plan Volume III: Scenario Planning Initiative.

Sources: US Census Bureau, 2020; U.S. Census Bureau, 2019 American Community Survey 1-Year Estimates; OnTheMap Application, 2019; Elevate Las Cruces Comprehensive Plan Volume III: Scenario Planning Initiative; Willdan Financial Services.

Residential Occupant Density

Public safety impact fees are calculated based on dwelling units or building square feet. Because service demand is based on population, it is necessary to use occupant density assumptions to calculate per-unit and per-square-foot fees. Occupant density assumptions ensure a reasonable relationship between the size of a development project, the increase in service population associated with the project, and the amount of the fee.

The City currently charges its residential public safety impact fee per dwelling unit, based on the size of each dwelling unit. **Table 2** displays the results of an analysis identifying the current persons per dwelling unit using the latest data available from the American Community Survey 2019 ACS 1-Year Public Use Microdata Sample (PUMS) for Las Cruces.

The table below shows the number of residents and housing units, by number of bedrooms used to calculate the number of people per housing unit. The table also shows the average number of square feet per new housing unit in Las Cruces, based on the number of bedrooms.

Table 2: Persons per Dwelling Unit by Bedroom

Bedrooms	Persons	Dwelling Units	Persons per Unit	Square Feet per Unit
0-1 ¹	38	32	1.19	1,081
2	125	78	1.60	1,930
3	320	140	2.29	2,166
4+ ²	138	44	3.14	2,820

¹ Building permit data from the past 12 months did not include any studio or 1 bedroom units. Figure show n is from prior public safety impact fee update study.

² Includes data for 4 and 5 bedroom homes.

Sources: American Community Survey 2019 ACS 1-Year PUMS Files For PUMA 1002; City of Las Cruces; Willdan Financial Services.

The number of persons per dwelling unit was plotted against the average square feet per dwelling unit from Table 2 in **Figure 1**, below. The resulting fitted curve equation is used to predict the number of residents per dwelling unit square footage. While larger dwelling units tend to house more residents, the number of residents per square foot of living space declines as dwelling units become larger.

Figure 1: Persons per Dwelling Unit by Dwelling Unit Square Feet

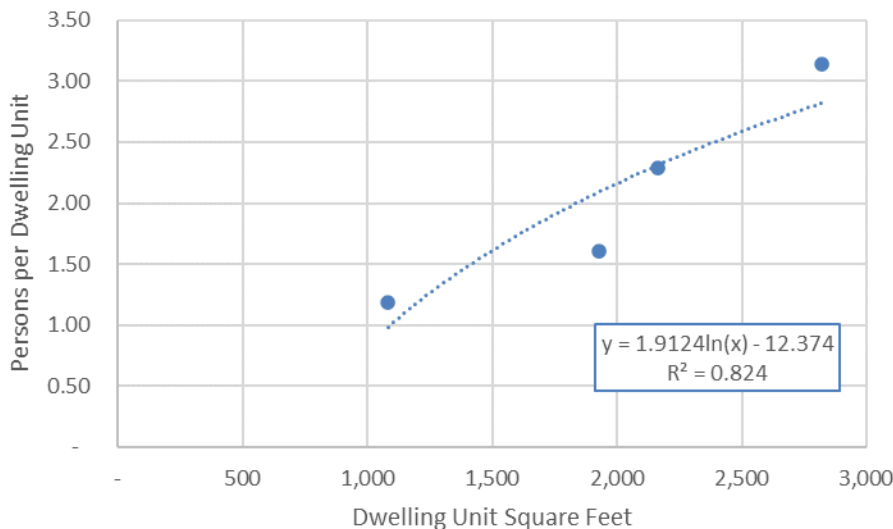


Table 3 uses the fitted curve equation from Figure 1 to estimate the number of persons per dwelling unit for each square footage range that the City currently charges public safety impact fees for.

Table 3: Persons per Dwelling Unit by Square Foot Range

Square Foot Range	Persons per Dwelling Unit
900 or less	0.63
901 to 1,300	1.34
1,301 to 1,700	1.85
1,701 to 2,100	2.26
2,101 or more	2.43

Source: Willdan Financial Services.

Nonresidential Occupant Density

Nonresidential public safety impact fees will be calculated to vary by land use based on the relative amount of employees generated by each land use. The nonresidential occupancy factors are calculated based on data from the most recent Institute of Transportation Engineers (ITE) Trip Generation Manual, 11th Edition. The transportation survey data reported in this resource per 1,000 building square foot or per employee can be cross referenced for each land use to calculate the number of employees per 1,000 square feet for building space for each land use included in the survey. **Table 4** displays the nonresidential occupancy density factors based on the ITE data.

Table 4: Nonresidential Occupancy Density Factors

Mini-Warehouse	0.29	Employees per 1,000 sq. ft.
Warehouse	0.34	Employees per 1,000 sq. ft.
Hotel/Motel (per room)	0.35	Employees per room
Industrial	1.57	Employees per 1,000 sq. ft.
Institutional	2.83	Employees per 1,000 sq. ft.
Office & Other Services	3.26	Employees per 1,000 sq. ft.
Commercial/Retail	2.12	Employees per 1,000 sq. ft.

Sources: ITE Trip Generation Manual, 11th Edition; Willdan Financial Services.