Affordability Calculator Description

Developed by Aodhan Hemeon-McMahon, in cooperation with Housing Works Austin and ULI Austin's Affordability Strategic Council, the Affordability Calculator is designed to help policy makers and other Affordable Housing stakeholders understand the financial viability of proposed affordable housing developments.

The tool allows users to input specific development assumptions and an Austin zip code to see if a development would be considered financially feasible for an investor. The tool does this by comparing the return generated from the user's inputs to an internal rate of return (IRR) "hurdle". Users can then add subsidy assumptions and/or apply a property tax abatement to push the returns over the hurdle, if necessary.

Disclaimer: This tool is to be used for educational purposes only and is designed to allow users to compare the relative merits of one possible development over another. It should not be used as verification for a specific development's worth or potential financial return.

Calculator Use

The affordability calculator is designed to estimate the financial viability of affordable housing projects in Austin, based on the number and size of units, the depth of affordability, the project's location (by zip code), and a set of financial assumptions, all of which can be modified by the user. The basis for whether a project is considered financially feasible by the calculator is if it passes an IRR hurdle rate which can be adjusted by the user (the default hurdle rate is 10%). Additionally, the calculator allows the user to add subsidy dollars to projects and/or apply a property tax abatement to push the project's returns over the hurdle rate, if necessary.

Unit size is calculated based on the ratio of each unit type to the adjustable "assumed average" apartment size, in square feet. For example, a ratio of 65% for studio units would mean that, in the given scenario, studio units are 65% of the overall average unit size for that project. Default ratios are taken from Rent Café data on the average apartment size per square foot, adjusted to meet the average square foot per unit (875) given by a collection of expense data for all classes of Austin properties in 2021. The construction cost for the project is the cost per square foot of construction (varying by the number of units in the project using RS Means data) multiplied by the number of square feet of construction plus an additional ten percent to account for non-living areas like hallways and stairwells.

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Calculator Assumptions

The assumptions for the Affordability Calculator are listed below.

Category	Assumption	Source / Reason
Average Rent, 30% MFI	$631	Average for 1-4 Person Household, HUD 2021
Average Rent, 60% MFI	$841	
Average Rent, 80% MFI	$1,048	
Average Rent, 1200% MFI	$1,262	
Average Rent, 140% MFI	$1,366	
Construction Cost for >10 Units (per square foot)	$160.80	RS Means, April 2022
Construction Cost for <10-50 Units (per square foot)	$179.72	
Construction Cost for >50 Units (per square foot)	$152.98	
Land & Property Acquisition Averages by Zip Code	Variable	TCAD Appraisal Data, February 2022
Average Annual Per Unit Operating Expenses	$8,367	Collection of expense data for Austin properties (all classes) provided by affordable housing developer
Average Unit Size	875 square feet	
Vacancy	5%	Standard (adjustable)
# of People per Bedroom	1.5 (Studio equals 1)	Standard HUD metric
Apartment Sizes	Variable	Rent Café Data from 2018 (it may be worthwhile to search for more recent numbers from a respected source)
Financing Assumptions		
Going-in Cap Rate	6.75%	Standard pro forma assumptions based on UT Austin Real Estate finance course sample pro forma
LTV Requirement	80%	
DCR Requirement	1.25	
Construction Loan Rate	4.50%	
Amortization Length	30 years with monthly payments	
Reversion Cap Rate	7.75%	
IRR Hurdle Rate	10%	
Income Growth Rate	5%	Based on Austin MFI trend increase of ~5% per year.

Time Horizon	10 years	Standard intermediate length time horizon (note: could be made adjustable with additional effort)