M E M O R A N D U M

TO: Mayor and Council Members

FROM: José G. Roig, Director, Development Services Department
Rosie Truelove, Director, Housing Department

THROUGH: Veronica Briseño, Assistant City Manager

DATE: July 24, 2023

SUBJECT: **Update on Resolution 20211209-062 – Housing Cost Analysis**

This memorandum serves as a response to City Council Resolution No. 20211209-062, which directed the City Manager to perform an analysis of the cost of producing housing in Austin and to explore potential options to reduce costs. The Resolution specifically directs the City Manager to do the following:

- Perform an analysis of the cost of producing housing in Austin; specifically,
  - Analyzing cost components for different types of housing, including single-family detached, duplex; townhome; small multiplex; and mid-rise multifamily;
  - Considering land costs; design and construction costs; financing costs, city costs; and other relevant cost components; and
  - Incorporating costs and associated time for rezoning, subdivision, site plan review; and compliance with applicable land use regulations;
- Identify potential options for cost reductions;
- Provide information on the public benefits provided by any associated regulations and fees under consideration for changes;
- Provide detailed information on potential impacts to public infrastructure and the environment for proposed changes;
- Present analysis of impact that housing cost has on housing supply;
- Develop recommendations for a scope of work to study opportunities for reduced permitting time;
- Consider performance measures and/or metrics to reflect outcomes related to housing goals set forth in the Strategic Housing Blueprint.

To meet the requirements in this Resolution, staff from the Development Services Department (DSD) and the Housing Department (HPD) partnered with the Lyndon B. Johnson School of Public Affairs at the University of Texas at Austin (LBJ School). Staff and a group of graduate students at the LBJ School completed a literature review of existing studies and subsequently compiled existing housing market

data, Travis County Appraisal District data, permit and fee data, and construction cost data. The graduate students then analyzed this data to estimate the costs of housing in Austin.

Some of the significant findings May 2022 report are:

- land and construction costs are the largest cost drivers of residential construction;
- building permit fees represent a 1-3% of total development costs;
- regardless of building typology, development costs are highest in Central and West Austin;
- single-family and duplex housing have comparable construction and total costs, but substantially different unit cost; and
- while total development costs are highest for multifamily, development cost per-unit is lowest when compared to the other housing types.

For further information, the May 2022 report is attached. The graduate students' work in Spring 2022 yielded a wide range of data and provided useful insights for the continued work in Fall 2022.

City staff worked with graduate students in the LBJ School's Smart Cities program in Fall 2022 to build on the Spring 2022 work. Specifically, staff and students delved further into regulatory cost data and identified options for reducing the cost of producing housing, while balancing the public benefits associated with recommendations for change.

The final report from January 2023 is attached. Some of the significant recommendations from the report include the following:

- Consolidation and streamlining of the City of Austin's Incentive Programs, specifically SMART Housing and Affordability Unlocked;
- Adjustments to the minimum lot size requirements in the Land Development Code;
- Relaxation of Accessory Dwelling Unit (ADU) requirements;
- Exploration of relaxation of compatibility and minimum parking requirements;
- Expansion of workforce development strategies;
- Continued rezoning of manufactured housing communities; and
- Advocacy at the state legislature regarding Low Income Housing Tax Credit and Private Activity Bond processes and regulations.

It should be noted that staff is currently exploring several of the recommendations. In addition, staff has been working diligently to reduce permitting time for residential construction. In fiscal year 2022, the Development Services Department (DSD) reviewed more than 35,000 building permits and 11,000 site plans and subdivisions. The Department was 88% on-time for reviews controlled by DSD. The FY22 DSD Annual Report https://data.austintexas.gov/stories/s/rs6h-gsnb further details improvements to the permitting process.

In addition, in conjunction with third party consultants, staff is currently exploring way to streamline the city's development review process to more efficiently and effectively deliver affordable housing and critical infrastructure projects. The consultants and staff from 12 different departments – all of whom contribute to development review – are working on recommendations for internal process improvements. The primary recommendations were delivered to the Interim City Manager in June 2023.

Finally, it is important to note that there were several requests in the Resolution that city staff and students were unable to address. Specifically, the resolution called for an analysis of the impact of various land use processes, including rezoning, subdivision, and site plan review, on the various housing model typologies. Because of project-specific nuances across the various development typologies, this information was not able to be comprehensively addressed. Similarly, the resolution called for an analysis of the costs for a variety of land use regulations, including parkland dedication, tree, mitigation, right-of-way dedication, transportation impact analyses, rough proportionality, Street Impact Fees, and Utility Costs. The research explores a selection of regulatory requirements, including the Heritage Tree Ordinance, and Parkland Dedication Fees, as examples. However, because of both data and time limitations, generalized conclusions were difficult to reach. The attached report(s) provide recommendations for areas of further research.

Should you have any questions or require any additional information, please contact either Keith Mars keith.mars@austintexas.gov or Mandy DeMayo mandy.demayo@austintexas.gov.

cc: Jesús Garza, Interim City Manager

Attachment

SMART CITIES POLICY RESEARCH PROJECT:

COST OF HOUSING IN THE CITY OF AUSTIN

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Spring, 2022

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EXECUTIVE SUMMARY

This report provides reliable estimates of the costs of single-family detached, duplex, townhouse, small multiplex, and mid-rise multifamily residential buildings in different ZIP codes within the City of Austin, Texas. Our report addresses key questions laid out in an Austin City Council resolution requiring City of Austin staff to evaluate costs of housing production at different scales and in different parts of the city to understand barriers to producing housing.

Our report begins with an introduction and literature review regarding the development process, factors which affect development, and context for Austin's affordable housing predicament. Next, we describe our data and existing gaps. Then, we describe our methodology for analyzing the costs of housing development, including "hard" and "soft" development costs, City of Austin fees, and ancillary expenses. These methods include quantitative analysis as well as qualitative analysis based on surveys and semi-structured interviews with stakeholders. Finally, we discuss our results and provide recommendations for the City of Austin to reduce the various costs of developing housing within the city.

We find that land and construction costs are, unsurprisingly, the main drivers of housing development costs. These patterns are reflected in the higher overall costs for development in Central and West Austin. We also find relatively higher regulatory costs in these areas.

Our qualitative data reveals that, as the costs for land and materials continue to rise, the margins for feasible housing development have narrowed. This means that additional fees, soft costs, regulatory requirements or delays can make or break a project. Stakeholders emphasized that Austin's complex Land Development Code and unpredictable permit review process were significant barriers preventing them from generating additional housing.

We provide several recommendations that can improve data collection, contextualize our findings, and improve City processes. The City of Austin should work to determine accurate land value data and permit approval timelines based on the shortcomings we identify. Additionally, City staff should consider our findings in context and understand the ways that these results may not consider factors like potential return, risk, and opportunity cost. Finally, the City should take steps to improve the timeliness and predictability of its permit review processes.

We are encouraged that the City is making a serious effort to address the many barriers to housing production in Austin. Our research has highlighted the urgent need to provide additional housing throughout the city. We sincerely hope that City staff will expand on this research where possible and incorporate the recommendations we have laid out.

INTRODUCTION

On December 9, 2021, the City Council of Austin, Texas adopted a resolution directing City staff to evaluate the costs of producing different forms of housing in the city. The resolution came amidst continued concerns about housing affordability caused by the city's rapid growth and associated increases in housing costs. The text of the resolution[1] and discussion during the City Council meeting[2] illustrate that City Council members want to know the effects of regulations, administrative delays, and environmental considerations in Austin as well as broader factors which affect the housing market.

Specifically, the resolution asks staff to quantify the overall cost to develop various types of housing across housing submarkets. The resolution requests cost estimates for housing types including single-family detached homes, duplexes, townhomes, small multiplexes, and mid-rise multifamily housing. Staff are also asked to define housing submarkets which establish geographic units of analysis. This will allow a comparison between geographies which may reveal where certain types of housing are more difficult to produce. Ultimately, Council hopes to understand where, and why, barriers exist to the development of certain housing types.

Our report begins with a literature review. In this section, we first describe the basics of the development process. Then, we discuss various studies which analyze the effects of various regulations and delays on the cost of housing development. Finally, we discuss the context of housing development in Austin. Then we analyze the hard costs, soft costs, and land acquisition costs associated with residential development in Austin. First, these sections lay out the components that comprise these cost categories, namely materials, labor, permitting fees, professional consultant fees, and land costs. Sections on the effects of administrative delay and regulatory overlays expand on how these variables impact soft costs.

After identifying the components of each cost category, our report covers the data which is available for each component. If data is readily available, we provide a brief description of the analytical methods which we have used to interpret this data. If data is not readily available, we discuss strategies for obtaining it. This provides a roadmap for how to conduct a thorough analysis of the costs to produce housing in Austin.

Financing costs are excluded from this analysis, though they are referenced in the council resolution. While financing is an important part of the development process, its structure can vary significantly depending on the individual project. Ultimately, the costs of financing are borne to cover the hard costs, soft costs, and land acquisition costs which we analyze.

Consequently, we consider it acceptable to exclude financing costs for the sake of clarity and accuracy.

Finally, we discuss the methodologies available to analyze total housing costs once the data is gathered. We recommend using a hypothetical prototype development model to analyze housing costs and grouping our findings using ZIP codes as distinct submarkets.

LITERATURE REVIEW

THE DEVELOPMENT PROCESS

In its simplest form, the decision to develop, or not, depends on the difference between expected return against expected costs. This basic formula is commonly referred to as the residual approach, where the development decision hinges on the residual value produced by development.[3] Commonly accepted methods for evaluating a development's feasibility will convert anticipated cash flows into present value and compare that present value to expected costs.[4]

A cost-only approach to development evaluation is generally discouraged. The International Valuation Standards Council (IVSC) notes that a cost-only approach is only recommended when "the asset is not directly income-generating and the unique nature of the asset makes using an income approach or market approach infeasible."[5] A key element of residential development is the income-generating potential of residential property; therefore, any conclusions from a cost-only analysis must be viewed as incomplete.

Researchers must also grapple with the reality that not all projects are feasible. Development evaluations often determine that "constraints will put a complete bar on the development taking place at all."[6] This represents a significant barrier for any analysis of development costs, since data is readily available only for developments which "pencil" or are found to be financially feasible. Researchers should carefully consider how data may be distorted in certain high-cost areas.

In the pre-development process, a developer will outline all anticipated costs associated with the project in a pro forma, which breaks the costs down by category and purpose.[7] These are generally grouped into hard costs and soft costs,[8] which may also be referred to as direct and indirect costs[9]. Hard costs refer to the costs associated with construction, namely materials and

labor. Soft costs refer to professional fees, permitting, regulatory fees, insurance, and taxes among others. The cost of land acquisition is typically considered as a separate category but may also be grouped with soft costs. Similarly, the cost of financing may either be its own category or included in soft costs.

VARIABLES AFFECTING DEVELOPMENT

Timing and location are vital to the development process and have significant impacts on costs. The cost of materials and labor can fluctuate significantly, though they have generally increased in recent years.[10] Specific sites will also provide their own sets of constraints. Some of these constraints are based on the physical and environmental characteristics of a site, which can increase construction costs as well as fees to site planning professionals.[11]

Many development constraints are less tangible. Most cities employ some form of land use controls in the form of zoning laws, compatibility standards, and environmental regulations. These regulations add costs to the development process and reduce the revenue-generating potential of a property.[12] For example, a site with complex land use regulations will require the developer to pay higher consultant fees to design the property according to regulations while also limiting the property to certain sizes and uses which generate less value.

Complex regulatory regimes can also lead to delays in the pre-development approval process. Site plan and building permit reviews may require more time when regulations are onerous. These delays can increase financing costs, add uncertainty to a project, and may lead to increased hard costs.

Empirical studies have found evidence that onerous land use regulations and regulatory delays, in fact, do increase the costs of producing housing. Glaeser and Gyourko find that zoning and regulatory delays both increase the cost of housing.[13] Malpezzi finds that higher levels of regulation are associated with higher rents.[14] Segal and Srinivasan find that growth restrictions are associated with a higher inflation rate for local housing prices.[15] These, and other studies, show that complex regulations and administrative delays impact a developer's bottom line and make housing less affordable.

COSTS OF HOUSING IN AUSTIN, TEXAS

Austin, Texas has a red-hot housing market, but it has struggled to keep pace with the increased demand for housing. The 2017 Strategic Housing Blueprint represents a vision for

sustainable growth in the city, with 135,000 housing units in ten years established as the benchmark.[16] Currently, the city is falling short of this goal, producing only 34,184 new units or less than 64% of production that would have been required over that time to be on-pace to meet the ten-year goal.[17]

The struggle to keep pace with demand can be attributed to a wide variety of factors. As previously noted, the market for materials and labor has led to increased housing costs in recent years.[18] Urbanization has also brought changing consumer tastes, with sudden demand for locations and design styles which are incongruous with planning in previous decades. These factors have led to housing challenges nationwide.

In addition to these industry-wide challenges, Austin has its own struggles. One significant factor is the complex land development code (LDC), which originated in 1984. A 2014 report commissioned by the City of Austin found that the LDC was "overly complicated, not well coordinated, and does not meet modern-day best practices,".[19] The diagnosis describes how an "ineffective" base zoning system was repeatedly updated with new standards and overlays which "created a Land Development Code with so many layers of regulations it is very difficult to understand and administer."[20]

Austin has also faced scrutiny for delays in site plan and permit approval. Partially in response to concerns raised by a 2015 third-party report on the City's permitting process[21] the City Auditor's Office released an August 2019 report finding that, although there were significant improvements in the permitting process, overall timeline and processing delays remained an issue.[21]The Development Services Department (DSD) agreed with a number of improvement measures proposed in the report to address these, and improvements in key metrics have continued in subsequent years.[22]

Fees associated with the permitting and development process also add meaningful costs to new housing. A 2022 study by the Texas A&M University Texas Real Estate Research Center[23] found that Austin's development fees for infill-style single-family homes significantly eclipsed peer cities at $41,303 per unit. This was more than three times the median, and over $19,000 per unit greater than the next-highest city among those studied.[24] Austin's per-unit fees for 200-unit suburban-style single-family development were less of an outlier, but still higher than peer cities. While this study does not explore the benefits of these fees and the differences between fee schedules in different cities, the results highlight Austin's relatively high level of fees.

With these factors in mind, our report seeks to address how a hot real estate market, rising construction costs, land use patterns, permitting delays and fees may affect the overall cost of housing.

DATA

Our report compiled data on land costs, city fees, and various regulatory overlays that may add to housing costs. For land, our report relied on the Travis County Appraisal District's appraised values. For City fees, DSD provided available data. For regulatory overlays, our report pulled from a number of sources including municipal, regional, and state regulations. This section will explore what data was used and how it was analyzed.

TCAD APPRAISALS

TCAD provides extensive information about all taxable properties within Travis County. At the parcel level, TCAD gives numerous financial estimates for the appraised value, assessed value, and fair market value for both land and total property (including land and buildings) per parcel. Any new construction project will require property acquisition as an initial step. Hence, we decided to use the fair market value column as our basis for determining the average cost of land and property in our pro forma calculations.

The 2022 TCAD dataset has 462,862 rows – one for every taxable parcel in Travis County. This dataset is one of 17 datasets provided as TXT files by TCAD upon downloading the "Appraisal Roll Export (February 2022)" file from TCAD's Public Information page.[25] Our chosen dataset, titled "Appraisal_Info.txt," includes 430 columns; "Property Market Value" is column 155 in this dataset.

After adjusting the data and sorting all parcels located within the City of Austin into their respective zip codes (the process for which is described in the methodology section above), we created a table of mean and median property market values per square foot by zip code (see Appendix: Table 1.1).

CITY FEES

Data provided by the City of Austin Development Services Department (DSD) includes detailed information regarding fees dating from FY 2015 through February 2022. For the 17 project subtypes identified by the research team, the City collected fees totaling $6.7 Million over this timeframe[26]. However, after limiting project subtypes to those residential construction projects relevant for our purposes (see Appendix: Table 1.2), we find five key subtypes: Single Family Houses "R-101", Secondary Apartments "R-102", Two Family Buildings "R-103", Three & Four Family Buildings "C-104", and Five or More Family Buildings "C-105". Under these conditions, the updated total fees collected from FY 2017 to FY 2022[27] amount to $4.1 Million. However, a

cursory glance at the distinct count of street addresses (i.e. the category grouping multiple fees under a singular project address, thereby creating a reasonable assessment of total discrete projects) reveals this data subset predominantly features fees collected in the fiscal year 2021 (FY_2021), meaning FY_21 demonstrates the most complete contextualization for the active fee structure available to us, and, therefore, we will further narrow this subject to fees occurring in fiscal year 2021.

With our updated subset representing fee activity within FY_2021, we find 43 relevant fees across 2,071 distinct project addresses for a grand total of $3.8 Million in total fees paid to the City (see Appendix: Table 1.3). Table 1.3 also provides visual cues (blue bars) indicating which fees applied more generally or selectively to projects, as well as which fees accounted for greater proportions of the aggregate totals collected. Additionally, Table 1.3 features a summary column for the average fee amount for each category to provide an estimation for variation between fee types. From this breakdown, we can begin to see the picture of which fees may be the most relevant for housing development costs in terms of general applicability and average magnitude.

Shifting towards a geographic context, Table 1.4 provides a look at fee costs by zip codes for FY_2021. Quick reference color bars were added to highlight general trends in the number of projects, total fee cost, and average fee cost across zip codes. Also, we included breakdowns of the number of projects and average fee by housing subtype for additional context. However, the applicability of some fees varied wildly between distinct address projects with some fees (for example: “Zoning Review Fee”) only appearing for a single address across all zip codes in FY_2021, meanwhile other fees (for example: “Technology Surcharge-DSD” with 2,063 distinct address counts) occurred at a far greater frequency. Taking this into account, we created a sublist of “common fees” for those fees with greater than roughly 100 observations across all 37 zip codes, then compared average amounts for each common fee by zip code and totaled those observations up to create average common fee costs per zip code, per housing type (see Table 1.5). Table 1.5 also features average costs to expedite City fee processing per zip code, per housing type to further demonstrate demonstrable variation across zip codes. Additionally, Table 1.5 offers a quick visual reference for current gaps in fee data for FY_2021 in that those zip codes without fees for particular housing types show “n/a” in lieu of fee averages, more on which is discussed further along within this report.

The total data available for fees collected by the City remains far more extensive than these summary tables demonstrate; however, these visualizations should provide our team, as well as our external partners, a general indication of where we can find the most significant trends regarding fee costs for housing development in, and around, the City of Austin.

REGULATORY OVERLAYS

Data on municipal regulatory overlays is in the City of Austin Land Development Code, in City Council ordinances, and in guidance published by City departments. Notable overlays to consider at the local level include base zoning, compatibility standards, the McMansion Ordinance, National Register Historic Districts (NRHDs), Neighborhood Conservation Combining districts (NCCDs), and density bonus opportunities including the University Neighborhood Overlay (UNO) and Transit Oriented Developments (TODs).

Data on regional and state regulatory overlays is available through the Texas Commission on Environmental Quality (TCEQ) and the Barton Springs/Edwards Aquifer Conservation District. Our analysis focuses on environmental overlays associated with the Edwards Aquifer and groundwater protection. These overlays mandate additional levels of environmental review for developments.

DATA GAPS / CURRENT CHALLENGES

CITY FEES

As explained above, our analysis was limited to FY 2021 as this was the only year that presented a complete contextualization of the active fee schedule. This is not to say that we lack data beyond this time frame, nor that we are unable to procure a wider range of data from the City of Austin's Development Services Department (DSD), but even within this narrowed context not all zip codes contain fee data for all relevant housing subtypes. This limits our overall scope for demonstrated fee costs for certain housing developments, particularly for multi-family constructions (R-102, R-103, C-104, and C-105) which are far fewer in prevalence relative to single-family home data (R-101) in our available data. The scant availability for multi-family data does limit our estimates' effectiveness for those housing types in terms of collected City fees, as fewer observations have greater impacts on our aggregated averages.

Furthermore, DSD does not collect all City fees relevant to housing development costs. For example "Parkland Dedication Fees", a fee often cited in our survey analysis as particularly costly, are instead collected by the Department of Parks and Recreation on a case-by-case basis. Our City contacts provided some initial guidance for these fees, but there may be additional data currently available which conforms to current parameters.

PROPERTY ACQUISITION

Property valuation presents an intriguing challenge for this assessment. The Travis County Appraisal District (TCAD) ostensibly provides fair market value estimates for all parcels within Travis County. As a "non-disclosure" state, Texas does not require that real estate sale information be made publicly available which could be used to verify the accuracy of TCAD appraised values. We have not been able to find a general "rule-of-thumb" percentage by which properties are under-or-overvalued during appraisal. If this information becomes available, we will be able to revise TCAD property assessments to better match real values on the market. Therefore, while imperfect, TCAD market value data appears to be the most comprehensive data source available to us in this project.

REGULATORY OVERLAYS

While the restrictions for different regulatory overlays are readily available, the associated costs for developers are not. Based on our literature review and discussions with stakeholders, we have determined that developers typically incur these costs through higher fees for professional consultants. Civil engineers, architects, and attorneys all play a role in ensuring new developments meet code and that they will pass site plan review. To estimate these costs, we rely on stakeholder engagement and a literature review.

Many overlays roughly follow the boundaries associated with our ZIP code submarkets. However, each submarket will have various regulations affecting each parcel in different ways. This presents a significant challenge for data analysis. Our methodology uses the concept of averaging to arrive at a rough estimate for some of the most significant regulatory overlays. However, this methodology has limitations, which are described at greater length below.

The Land Development Code is far too complicated to obtain estimates of added costs imposed by all, or even most, of the overlays which exist in Austin. Therefore, it is important to focus on the most impactful overlays, some of which have been described above. Ultimately, this will still result in an incomplete analysis.

Some overlays significantly hamper development without adding to costs per se. Instead, these restrictions limit the potential use of a site, which in turn limits the potential return. Often, these restrictions are not plainly evident in the base zoning code.

Compatibility standards, which are rules limiting the height, footprint, and design of a building based on their proximity to another feature, are a notable example. In Austin, the most widespread compatibility standards place restrictions on any development near a single-family home. Stakeholders noted that it is incredibly difficult to waive any of these restrictions barring participation in a density bonus program like Affordability Unlocked.

Compatibility standards do not make it more expensive to build multifamily apartments on some sites, rather, they simply do not allow it at all. Other building types like fourplexes are so constrained by compatibility that they either become impossible to design or will not generate enough revenue to be feasible. These impacts are left out of our analysis, which focuses on drivers of development costs. Our data must be paired with other studies which explore the ways risk, delay, and limits on revenue potential affect housing production in Austin.

METHODOLOGY

In this section, we briefly describe the analytical methods our team used to arrive at an estimation of housing costs across different housing types and geographic submarkets. We first discuss our decision to use hypothetical pro formas to estimate costs for different housing types. We then discuss our decision to establish ZIP codes as our geographic submarkets. Afterwards, we explain how we arrive at estimates for the costs associated with land, construction, and City of Austin fees. We then contextualize our analysis of soft costs before presenting a method for estimating the costs of certain regulatory overlays by ZIP code. These methods allowed us to complete a hypothetical pro forma for each housing type by ZIP code.

THE HYPOTHETICAL PRO FORMA MODEL

The nature of housing development and the complexity of Austin's LDC present significant challenges for this analysis. No two parcels are exactly alike, and each faces its own regulatory challenges, but our analysis must find a way to smooth those differences to present findings for distinct geographic submarkets. Data is also limited by the proprietary ownership of certain information and the lack of information for projects which do not pencil. This requires a careful selection of methodology. We have determined that a model which uses a hypothetical development pro forma is preferable to alternatives like regression analysis.

Researchers who study the effects of a specific regulation or delay tend to rely on a hypothetical prototype development model. In this method, a researcher will use industry knowledge and market trends to produce a pro forma for a "standard" development within the housing type they wish to study. The researcher will then examine the impacts of a certain regulation or delay on this hypothetical development by adjusting the pro forma costs. The Montgomery County Planning Department uses a hypothetical prototype model to analyze the feasibility of missing middle housing across different geographic areas in Silver Springs, Maryland, a suburb of Washington, D.C.[28] Garcia uses this method to demonstrate the effect of additional development requirements on a project's costs and rents.[29] Texas A&M also used this method to estimate the per-unit costs of development fees in Texas cities.[30]

This method relies heavily on ballpark estimates and expert knowledge to establish a hypothetical project model. Several assumptions must be made which may not reflect the reality for many projects which are developed. However, a hypothetical development model would allow a researcher to examine the effects of specific regulations on a prototypical project and present those results in easy-to-understand terms. The hypothetical development model is best suited for this report's research question, since it would allow for different project types to be evaluated and compared across different contexts.

IDENTIFYING SUBMARKETS

The Council resolution stipulates that "this study should divide Austin's housing markets into submarkets and produce housing submarket models".[31] The existing literature on housing markets does not establish one clear definition of a housing submarket. Researchers may define housing submarkets by geography, by the demographics of the renter or buyer, or by the physical characteristics of the dwelling.[32]

While the resolution does not provide a definition for housing submarkets, conversations with City and Council staff made it clear that submarkets should be defined by geographic area. We identified three characteristics that would be reflected in an ideal housing submarket model and chose how to define submarkets based on these characteristics.

First, submarkets should reflect generally accepted distinctions within the city's layout. At minimum, there should be separate submarkets for urban and suburban areas. Ideally, submarkets would also reflect boundaries between neighborhoods with distinct characteristics. For example, a housing submarket model should recognize distinctions between the neighborhoods of Old West Austin, West Campus, and Hyde Park, although these neighborhoods are all quite close geographically.

Second, the submarkets should reflect existing regulatory overlays as much as possible. These overlays can reflect neighborhood or environmental boundaries and may be regulated by City or State entities. No submarket model can reflect each of these boundaries. However, preference should be given to models which divide overlays as infrequently as possible.

Third, the submarkets should facilitate simple analysis and presentation of the data. Certain submarket models might require the research team to devote significant time to analysis using Geographic Information Systems (GIS) which may impact the ability to conduct certain forms of analysis. In addition, the submarket models must be developed for presentation to City Council, serving as representatives of the public. The submarket model should be easy to explain, and ideally should reflect existing groupings that are known to the general public.

Based on these characteristics, we are using ZIP codes to define housing submarkets. ZIP codes are broad enough that individual ZIP codes typically encompass or follow the boundaries of important regulatory overlays. However, they are not so broad as to erase important distinctions between neighborhoods, and ZIP codes largely reflect distinct residential communities. Most importantly, ZIP codes are the easiest choice for simple data analysis and presentation. All data sets already include ZIP code data, and they are well-understood by elected officials and the general public.

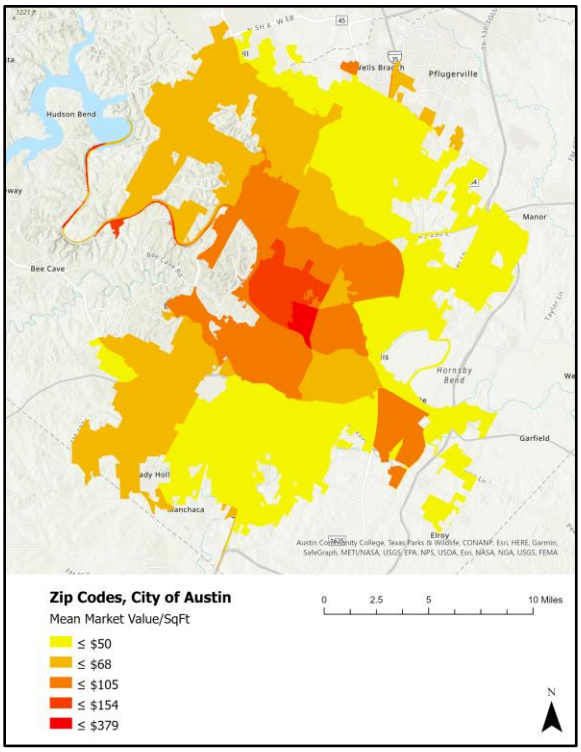
Other options have critical flaws. Census tracts are too granular for our analysis. Council districts group neighborhoods with very different characteristics together and present a challenge due to recent redistricting. Housing markets identified by the Austin Board of Realtors are similar in size and shape to ZIP codes. While they are slightly more faithful to neighborhood boundaries, they would produce additional hurdles for data analysis and would be less easily understood by a public audience.

IDENTIFYING LAND AND PROPERTY ACQUISITION COSTS

To ensure that the per-building cost estimates we produce are sensitive to their location within the City of Austin, we have used Travis County Appraisal District's (TCAD) February 2022 Appraisal Roll Export dataset to establish median costs of property and land acquisition based on the TCAD estimated market value per parcel. Because TCAD appraisal data can only be downloaded as an approximately 12 gigabyte series of fixed width text files, preparing the data

required heavy manipulation in the program R to separate appraisal data into columns and pull out our columns of interest: namely the parcel-level property ID and market value columns.

After preparing the dataset, we joined the parcel-level TCAD data to a polygon shapefile of parcels within Travis County using ArcGIS. To address outliers without removing them entirely, we adjusted the estimated market value database so that the minimum allowed value was $10 per square foot, and the maximum allowed value was $1,000 per square foot.[33] Most of the values already within that range were not adjusted. We then separated all of the parcels in the City of Austin into their respective zip codes and calculated the mean and median values for market value per parcel for each zip code.



IDENTIFYING CONSTRUCTION COSTS BY BUILDING TYPE

To acquire accurate average costs for construction by building type (single-family detached, duplex, townhouse, small multiplex, and mid-rise multifamily), we used RS Means as our primary source. RS Means is a premier data source for accurate construction estimates and is frequently used in both professional assessments and academic studies to provide construction estimates. RS Means can generate a cost-per-square-foot figure for multiple building types, based on a set of category inputs provided by the user. We provided RS Means with a set of assumptions for a standard development for each of our building types to return the average estimated construction cost of square foot. The categories required by RS Means and our inputs for each category can be viewed in the table below.

Building Type	Single-family Detached (2)	Duplex (modified)	Townhome (modified) (10 units)	Small Multiplex (Modified) (~8 units)	Mid-rise Multifamily (Modified) (~135 units)
Building Category	Residential new construction	Residential new construction	Commercial new construction	Commercial new construction	Commercial new construction
Labor Type	Residential	Residential	Open shop	Open shop	Open shop
Baseline Quarter/Year	2021	2021	2021	2021	2021
Location	Austin, TX	Austin, Tx	Austin, TX	Austin, TX	Austin, TX
Commercial Building Type	N/A	n/a	Apartment, 1-3 Story	Apartment, 1-3 Story	Apartment, 4-7 Story
Commercial Wall/Framing Type	N/A	n/a	Stone Veneer / Wood Frame	Fiber Cement / Wood Frame	Precast Concrete / Reinforced Concrete
Residential Building Type	Average 1 Story		N/A	N/A	N/A
Residential Wall/Framing Type	Brick Veneer - Wood Frame		N/A	N/A	N/A
Building Parameters					
Area (SF)	2,092	2,092	15,000	6800 (8 units * ~850 SF)	115000 (135 units * 850SF)
Perimeter (LF)	182	182	350	200	600
Stories	1	1	2	3	7
Story Height (ft)	8	8	10	10	10
Contractor Fees (%)	10%	15%	15%	25%	25%
Architectural Fees (%) (Commercial Only)	N/A	n/a	10%	10%	10%
User Fees (%) (Commercial Only)	N/A	n/a	0	0	0
Include Basement	no	no	no	no	no
Building additives	2.5 baths; one car attached garage; no appliances included	each unit has 1.5 baths; 400sf carport; no appliances included			
Building Cost	**$232,559.11**	**$252,094.57**	**$2,411,927.70**	**$1,222,066.56**	**$17,592,469.41**
Cost per S.F.	**$111.17**	**$120.50**	**$160.80**	**$179.72**	**$152.98**
Cost per Unit (ESTIMATED)	*$232,559.11*	*$126,047.29*	*$241,192.77*	*$152,758.32*	*$130,314.59*

For all building types aside from “single-family detached” and “duplex” we assume commercial new construction. Labor type is “open shop” for all commercial projects because in Texas, as a right-to-work state, a person cannot be denied employment because of non-membership in a labor union.[34] We assume “average” quality (as opposed to “economy” or “luxury”) for all building types. We also assume that the single-family and duplex buildings will be one story, while the townhome will be 1-3 stories. The 3-story assumption for the small multiplex and the 7-story assumption for the mid-rise multifamily buildings are approximations constrained by the need to fit pre-existing “commercial building type” options provided by RS Means. The square-footage area for the single-family and duplex buildings is based on a 2021 study by Filterbuy derived from census data.[35] The square-footage area assumption for the townhouse is based on an average provided by Fixr for an average-cost, “traditional” townhouse.[36] The commercial story height of 10 ft. is taken from a recent study by Eriksen and Orlando (2021) in which the value was described as the “industry standard.”[37] The contractor fee percentage values are based on the average general contractor rates as described by Home Advisor.[38] The architectural fee percentage is the average value for Austin given by Austin-based architectural design studio Webber + Studio.[39]

QUANTIFYING CITY FEES

Fees levied on projects through local/regional ordinance and code have notable impacts on the overall cost of housing . For instance, Texas A&M found that the per-unit cost of development fees in Austin could represent anywhere from 3.2% to 7.3% of the average price of a single-family home in the Austin metropolitan area, depending on the type of development.[40] The same study found that Austin’s fees are significantly higher than peer cities, and more than three times the median fee amount for an infill-style home.[41] While the impact of fees on

overall cost pales in comparison to land and construction cost, our report does address these costs and how they vary throughout the city.

To get an accurate sense for which fees are relevant to affordable housing concerns, as well as how fees vary across geographic regions and between our submarket classifications, our team partnered with the City of Austin's Development Services Department (DSD) to obtain the most recent, accurate data for these fees. With the generous help of our partners within the department, we secured access to City records detailing fee costs over time and regions for individual projects.

Focusing on residential construction, as opposed to commercial development or demolition permitting, we subdivided the DSD data primarily by SUBTYPE (the City's demarcation between single family residences, multi-family construction, etc.) to differentiate between project scale. We then organized the data by zip code to provide insight into possible geographic variations across the region. Our primary analytical approach will be to average fee categories across geographic (zip code) regions for particular residential project subtypes during fiscal year 2021 (the year we have the most complete picture of with available data) to provide the clearest view into the current fee structure.

Leaning on this curated data we aim to provide an accurate, detailed, and intuitive view into how key fees vary across geography and project subcategories, with an eye towards identifying possible areas where policy interventions may enhance the feasibility of future affordable housing developments.

ESTIMATING AND CONTEXTUALIZING SOFT COSTS

Soft costs have many different categories, however the easiest way to identify them is to think of any cost that is not included in the cost of acquiring land, or the construction and materials cost of the project. Some examples of soft costs are architectural design, land surveying and environmental assessments, permitting fees, market studies, legal fees, carrying costs, etc. For this portion of our analysis in particular, we focus on the soft costs associated with various stages of the development process, as well as how those costs are impacted by delays in the process. It is also important to note that though permitting fees are technically included within soft costs, we have decided to gather that data separately, since it is more readily available and quantifiable using records from the City itself.

While data on information like permitting fees is regularly collected by the City of Austin, and therefore accessible in the form of hard quantitative data, this is not necessarily the case for other types of soft costs. Often, other soft costs vary greatly from project to project depending

on everything from size of the project to location. There are also some costs that can be highly dependent on timeliness of the project: For example, a developer may incur more carrying costs due to delays by the City in reviewing permitting requests. The impact of these delays are more difficult to quantify, but still important to take into account when estimating the overall cost of a project. Due to the open-ended nature of this type of data, we conducted a series of questionnaires and semi-structured interviews with developers of all types in the City of Austin. We used the results from these questionnaires and surveys to validate the pro forma assumptions made in our *Results* section, as well as to provide descriptive context on the process of developing housing in Austin and how some costs may be impacted by delays in the development process.

To begin, our group conducted several preliminary interviews with local experts in Housing Development. From these interviews, we gathered not only context on the Austin Housing Market, but were able to get sample proformas from Developers themselves to demonstrate the typical cost break-down of a housing development in Austin. These resources helped to inform us as we crafted the questions to be used for our future interviews. The contacts from our preliminary interviews also helped us to build out a list of Austin developers and other experts in the development space to be contacted with requests for interviews. Our respondents were: 5 market-rate single-family developers, 2 market-rate multi-family developers, and 3 affordable housing multi-family developers.

Ultimately, the interview process was broken down into two parts. The first set of questions - which asked developers and experts to make estimates on soft cost categories - were sent as a questionnaire to each interview participant, ahead of their interviews. These questions are located in Appendix C. The purpose for this was to allow respondents time and space to refer to any materials of their own, in order to give as accurate an estimate as possible. These responses, which are located in Appendix D, would later be used to help reinforce the pro forma assumptions used in our results. The more open-ended questions, which mostly concerned context around the development process, were asked during the interview to allow participants more lengthy answers and descriptions. Interview questions are located in Appendix E.

Interviews were conducted virtually using Zoom, with at least 2 of our researchers present at each. All participants agreed to have interviews recorded for transcription purposes. Once interviews had been conducted, all members of our research team met to review the transcripts, and to begin designating "codes" to themes we felt were prevalent across responses. Codes used to complete this analysis are located in Appendix F. Once these codes were refined and decided, each interview transcript was coded by at least 2 members of our team. This process allowed us to begin building a narrative around the process of developing housing in Austin by identifying key themes and commonalities across responses. It also helps

to provide more context around the quantitative data collected throughout the rest of the research process.

QUANTIFYING REGULATORY COSTS

No two parcels face the same development costs and variations in regulatory code, environmental conditions, and market dynamics all impact a site's development potential. This makes it very difficult to extrapolate the cost of developing housing across a wider geographic area. Comparable case studies we have reviewed use averages or, when averages are not possible, very broad assumptions to achieve this. For example, a study of housing costs in Silver Springs, MD assumes that the applicable regulations and development fees for the geographic center of an area of analysis apply throughout the entire area.[42]

We adopt a different methodology. This method extends the concept of averaging and applies it to variable soft costs. We take the percentage of a ZIP code that is affected by a certain overlay and multiply that percentage by the expected costs associated with the overlay. For example, if a ZIP code is 60% covered by an overlay that carries $10,000 in added costs, we assume a new development in that ZIP code would have $6,000 in added costs. We apply this calculation to costs associated with water quality or flood control, rezoning and tree care (see Appendix B).

Individually, the impact of these additional costs is negligible. However, a combination of additional restrictions, regulations, and costs can significantly affect a site's development potential. To demonstrate the impact of other costs, it would be possible to gather additional data and use the same methodology. For example, we heard from stakeholders that topography, neighborhood plans, and utility connections carry additional costs which vary by geography, but we were not able to obtain reliable estimates for the associated costs of each. If City staff are interested in studying the effects of specific overlays or regulations, we recommend continuing to engage with stakeholders who deal with them in practice to obtain reasonable cost estimates.

However, this method has several limitations. First, our methodology focuses purely on monetary costs. Stakeholders noted that delay, risk, and the limit on potential revenue associated with certain restrictions are just as likely to halt development as the monetary cost. Additionally, each restriction carries its own public benefits, which many stakeholders acknowledged were important to consider alongside costs. These impacts are not measured by this methodology.

Second, our methodology assumes that all sites in a ZIP code are developable. In reality, developers carefully select specific sites. Our methodology may overestimate costs in certain ZIP codes by considering land which developers would ignore, and it may underestimate costs in other ZIP codes by overlooking onerous regulations that affect a handful of developable sites.

Finally, our stakeholder interviews made it clear that it is the totality of all regulations which drive development costs in Austin. Identifying a few additional variable costs is unlikely to make a noticeable impact compared to the costs of land and construction. At the same time, it is not feasible to truly measure all possible costs in the development process and aggregate those costs across geographic areas due to the limitations described above. To get a sense of the costs associated with the City's complex LDC, it is more appropriate to gather qualitative input from stakeholders. Thankfully, numerous documents such as the Zucker Report and Code Diagnosis have already conducted this stakeholder engagement. We have discussed additional perspectives we gained from stakeholders further below.

RESULTS

We were able to produce a cost matrix as outlined by the Council resolution, with total costs shown for five distinct housing types (single-family, duplex, townhome, low-rise, and multifamily) across each ZIP code. Our results are based on our hypothetical pro forma models, which model what a typical development for each housing type would look like in each ZIP code. Our model input data on land costs, estimated construction costs, estimated soft costs, average City fees, and selected regulatory costs.

We found that overall costs for all types of housing are highest in Central and West Austin. This is primarily due to variations in land costs, which along with construction make up the majority of a project's costs for all types of housing. Construction costs were held constant for each housing type, which may overlook some variations that may occur due to topography and other factors which could raise costs. City fees tended to be highest on average around the urban core.

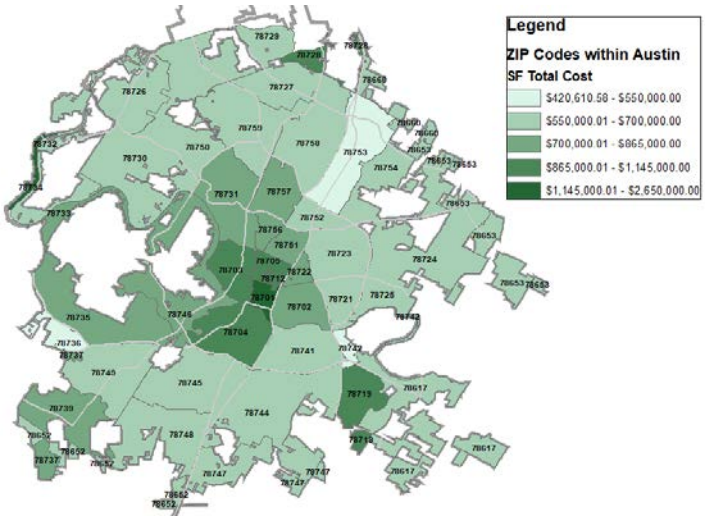
While multifamily housing is most expensive to develop, it is the least expensive option by unit. Additional regulatory costs, including rezoning, affect the cost of multifamily housing more than low-intensity uses like single-family. These added costs are heaviest in residential neighborhoods surrounding the urban core and in West Austin.

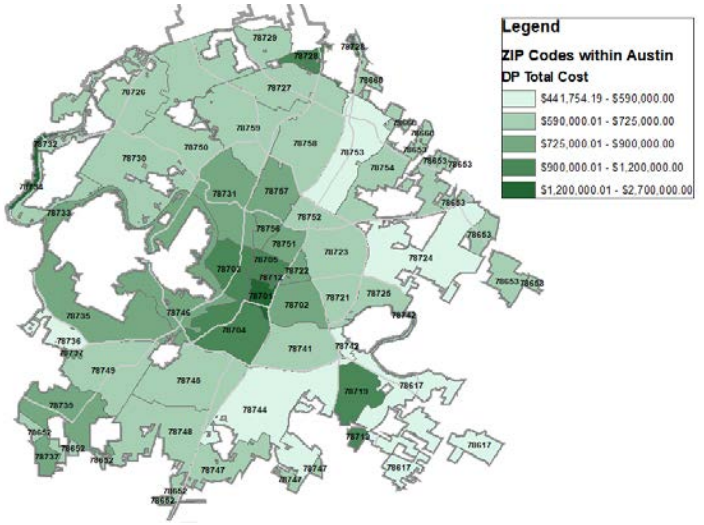
Total Cost of Each Building Type by Zip Code

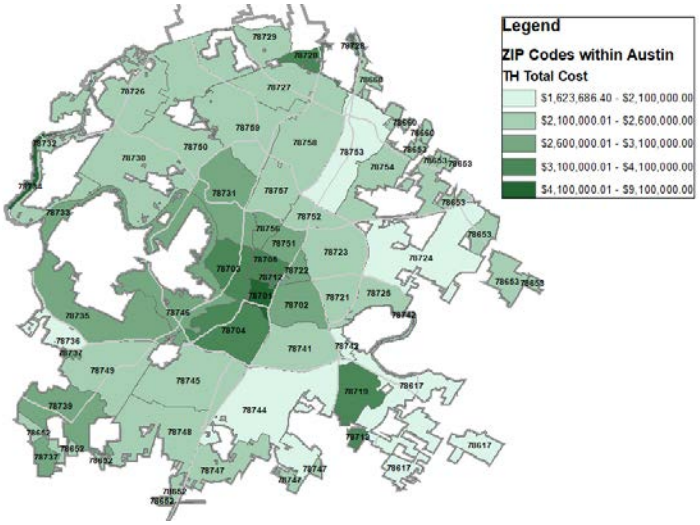
Zip Code	Single-Family Total Cost	Duplex Total Cost	Townhome Total Cost	Low-Rise Total Cost	Multifamily Total Cost
78617	$ 557,626.89	$ 579,602.60	$ 2,082,764.40	$ 7,259,084.98	$ 30,370,444.36
78652	$ 671,698.30	$ 694,488.71	$ 2,469,356.40	$ 8,107,830.14	$ 33,719,711.77
78653	$ 600,970.23	$ 622,278.85	$ 2,227,736.40	$ 7,577,364.41	$ 31,626,419.64
78660	$ 644,835.74	$ 665,604.76	$ 2,372,708.40	$ 7,895,643.85	$ 32,882,394.92
78701	$ 1,782,919.81	$ 1,806,520.60	$ 6,190,304.40	$ 16,277,002.34	$ 65,956,410.55
78702	$ 847,130.48	$ 869,277.18	$ 3,049,244.40	$ 9,380,947.89	$ 38,743,612.88
78703	$ 1,143,307.07	$ 1,163,852.82	$ 4,039,886.40	$ 11,555,857.37	$ 47,326,110.61
78704	$ 926,606.39	$ 948,731.34	$ 3,315,026.40	$ 9,964,460.19	$ 41,046,234.22
78705	$ 1,031,937.23	$ 1,055,538.02	$ 3,677,456.40	$ 10,760,158.78	$ 44,186,172.41
78712	$ 995,832.30	$ 1,019,433.09	$ 3,556,646.40	$ 10,494,925.91	$ 43,139,526.35
78719	$ 970,558.85	$ 994,159.64	$ 3,472,079.40	$ 10,309,262.91	$ 42,406,874.10
78721	$ 594,320.54	$ 617,795.71	$ 2,203,574.40	$ 7,524,317.84	$ 31,417,090.43
78722	$ 745,818.28	$ 766,698.57	$ 2,710,976.40	$ 8,638,295.87	$ 35,813,003.90
78723	$ 615,047.57	$ 638,427.12	$ 2,276,060.40	$ 7,683,457.56	$ 32,045,078.07
78724	$ 557,465.25	$ 578,952.93	$ 2,082,764.40	$ 7,259,084.98	$ 30,370,444.36
78725	$ 673,299.32	$ 694,488.71	$ 2,469,356.40	$ 8,107,830.14	$ 33,719,711.77
78726	$ 687,311.92	$ 708,930.68	$ 2,517,680.40	$ 8,213,923.29	$ 34,138,370.20
78727	$ 620,341.02	$ 643,941.81	$ 2,300,222.40	$ 7,736,504.13	$ 32,254,407.28
78728	$ 1,021,105.76	$ 1,044,706.54	$ 3,641,213.40	$ 10,680,588.92	$ 43,872,178.59
78729	$ 627,562.00	$ 651,162.79	$ 2,324,384.40	$ 7,789,550.71	$ 32,463,736.49
78730	$ 699,771.87	$ 723,372.65	$ 2,566,004.40	$ 8,320,016.43	$ 34,557,028.62
78731	$ 787,950.54	$ 810,117.51	$ 2,855,948.40	$ 8,956,575.31	$ 37,068,979.18
78732	$ 598,258.10	$ 618,668.35	$ 2,215,655.40	$ 7,550,841.13	$ 31,521,755.03
78733	$ 851,412.58	$ 875,013.37	$ 3,073,406.40	$ 9,433,994.46	$ 38,952,942.09
78734	$ 2,627,775.20	$ 2,651,375.99	$ 9,017,258.40	$ 22,483,451.35	$ 90,447,928.45
78735	$ 738,523.93	$ 759,477.59	$ 2,686,814.40	$ 8,585,249.30	$ 35,603,674.69
78736	$ 548,131.15	$ 571,731.94	$ 2,058,602.40	$ 7,206,038.41	$ 30,161,115.15
78737	$ 836,970.60	$ 860,571.39	$ 3,025,082.40	$ 9,327,901.31	$ 38,534,283.67
78739	$ 723,395.48	$ 745,035.61	$ 2,638,490.40	$ 8,479,156.15	$ 35,185,016.26
78741	$ 608,675.95	$ 629,499.83	$ 2,251,898.40	$ 7,630,410.99	$ 31,835,748.85
78742	$ 420,610.58	$ 441,754.19	$ 1,623,686.40	$ 6,251,200.10	$ 26,393,189.32
78744	$ 557,651.73	$ 581,099.98	$ 2,082,764.40	$ 7,259,084.98	$ 30,370,444.36
78745	$ 608,741.02	$ 629,724.54	$ 2,253,254.78	$ 7,631,767.37	$ 31,837,105.24
78746	$ 775,028.54	$ 795,582.52	$ 2,807,624.40	$ 8,850,482.16	$ 36,650,320.75
78747	$ 615,382.75	$ 636,813.91	$ 2,276,060.40	$ 7,683,457.56	$ 32,045,078.07
78748	$ 628,596.07	$ 651,162.79	$ 2,324,384.40	$ 7,789,550.71	$ 32,463,736.49
78749	$ 663,666.93	$ 687,267.72	$ 2,445,194.40	$ 8,054,783.57	$ 33,510,382.56
78750	$ 636,886.69	$ 658,383.78	$ 2,348,546.40	$ 7,842,597.28	$ 32,673,065.71
78751	$ 861,356.68	$ 882,234.35	$ 3,097,568.40	$ 9,487,041.03	$ 39,162,271.30
78752	$ 608,683.23	$ 632,588.45	$ 2,251,898.40	$ 7,630,410.99	$ 31,835,748.85
78753	$ 526,468.19	$ 550,068.98	$ 1,986,116.40	$ 7,046,898.69	$ 29,533,127.51
78754	$ 600,954.70	$ 622,278.85	$ 2,227,736.40	$ 7,577,364.41	$ 31,626,419.64
78756	$ 861,364.47	$ 882,234.35	$ 3,097,568.40	$ 9,487,041.03	$ 39,162,271.30
78757	$ 702,785.23	$ 726,085.06	$ 2,566,004.40	$ 8,320,016.43	$ 34,557,028.62
78758	$ 587,196.72	$ 607,836.87	$ 2,179,412.40	$ 7,471,271.27	$ 31,207,761.22
78759	$ 658,663.87	$ 680,046.74	$ 2,421,032.40	$ 8,001,737.00	$ 33,301,053.34

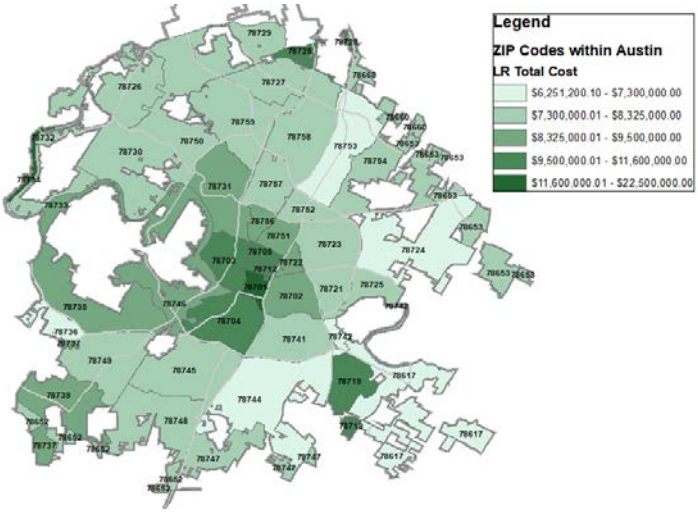
Housing Development Costs:

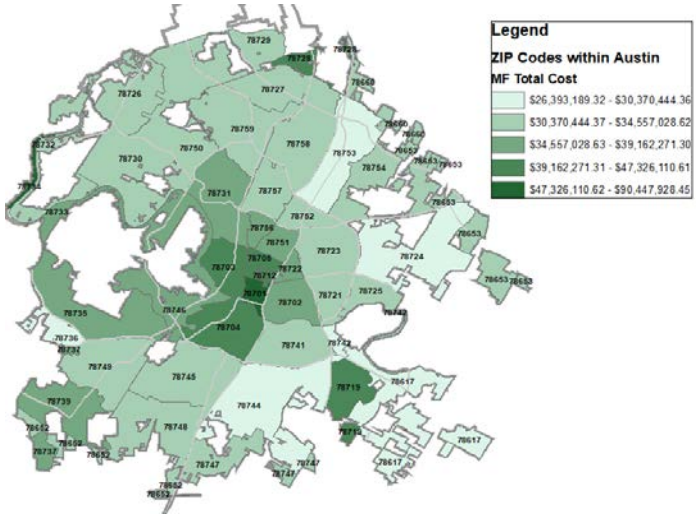
Single-Family, Duplex, Townhome, Low Rise, and Multifamily





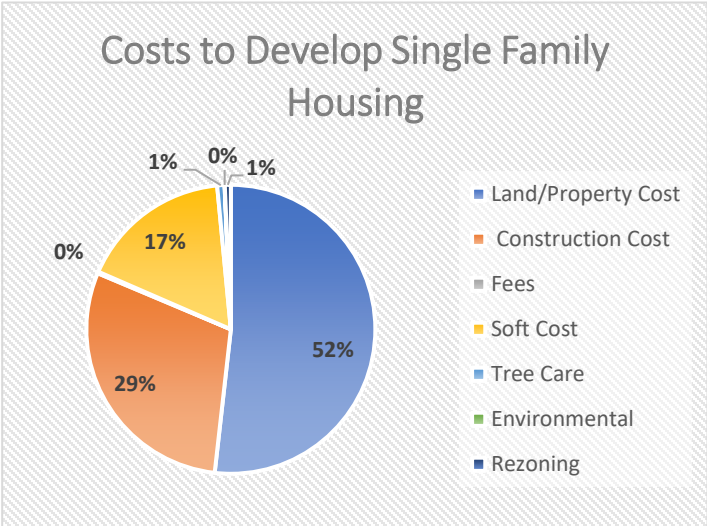


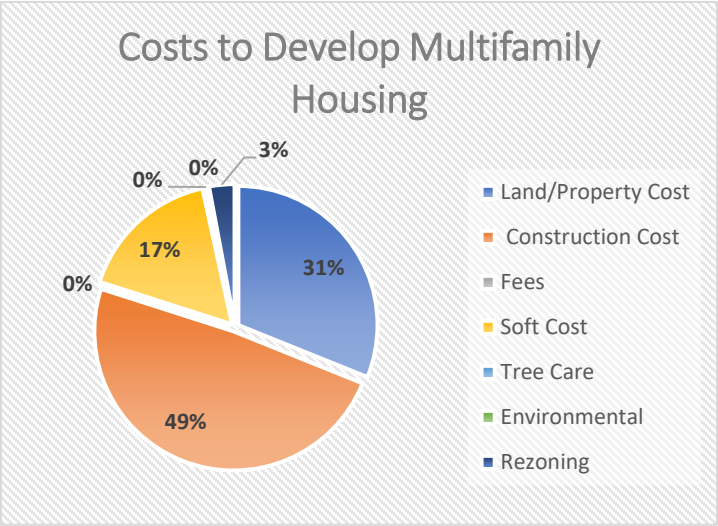




The five maps showing our results for total development costs each appear remarkably similar. While the overall costs differ by housing type, the geographic dispersion of those costs do not. In each of the five housing categories, development costs are highest in Central Austin, with far West Austin relatively higher compared to far East Austin.

This is a reflection of the variation in land costs by ZIP code. Our results show that land and construction costs are by far the largest driver of housing costs in the City of Austin. In our hypothetical pro forma, the land and construction costs for both single-family and multifamily housing made up over 80% of total development costs. Because our model held construction costs constant, and soft costs were a function of land and construction costs, the geographic variation in total development costs is essentially a reflection of different land values. This results in the nearly identical maps for the five housing types.

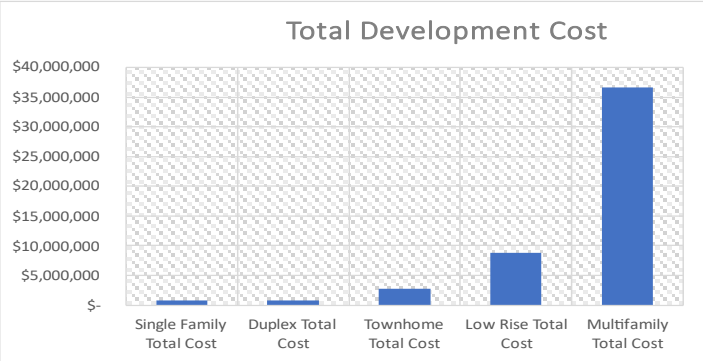




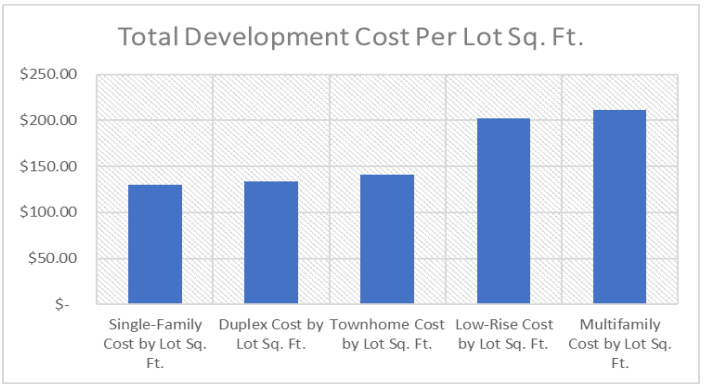
Each of the five housing types require higher total costs as density increases due to the additional construction costs required to build additional units. In our model, multifamily housing was the only category requiring concrete, which drives its significantly higher construction costs. The effect of these costs is shown in the figures above, with construction costs making up a much more significant portion of total costs for multifamily housing compared to single-family housing.

The cost per unit, however, tends to decrease with density even as total costs rise. For our model, we assumed increasingly larger lots to accommodate larger densities in line with previous research on standard practice (see Appendix B, Section A for pro forma assumptions). This results in total costs per square foot ranging from approximately $130/sq. ft. on average for single-family to approximately $210/sq. ft. for multifamily.

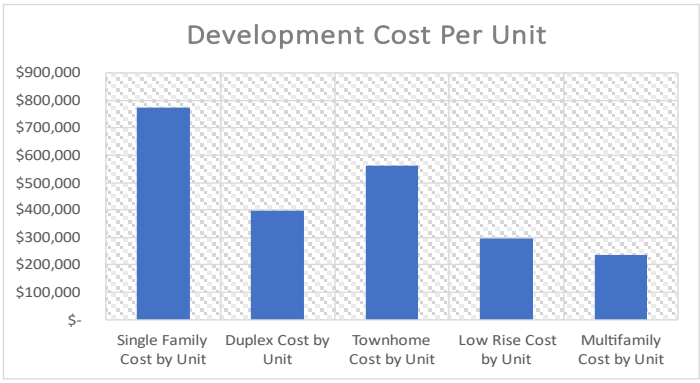
These results highlight both the important of multifamily housing and the precarity of the multifamily development process. Multifamily housing allows for more housing per square foot than low-intensity uses and is cheaper to build per unit. Both of these benefits are important as the city works to meet its Strategic Housing Blueprint goals.



However, the high overall costs of multifamily housing development make it more susceptible to other variables which add to costs. Construction costs can be pushed even higher by design regulations or policies like parking minimums. The high levels of financing needed to develop multifamily housing means that any delays in the development process will carry huge carrying costs as well.



With these thin margins, relatively small additional costs can greatly impact the feasibility of a housing development. Adding the costs of City fees and variable costs associated with different overlays does not meaningfully change the overall costs of housing. In addition, the Austin market has been such that the price charged per unit can be increased significantly to negate smaller additional costs. Austin's rent prices exemplify a market that can support sudden and large rent increases. This is not to say that these added costs are insignificant, however. As land and material costs continue to rise, developers will look to minimize costs and maximize returns wherever possible.

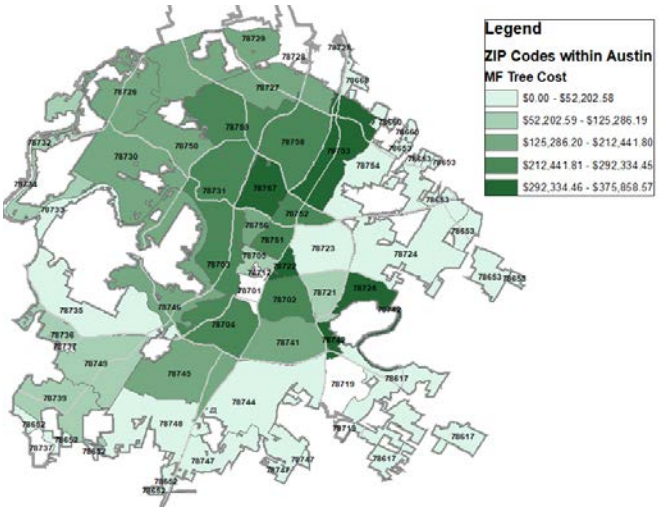


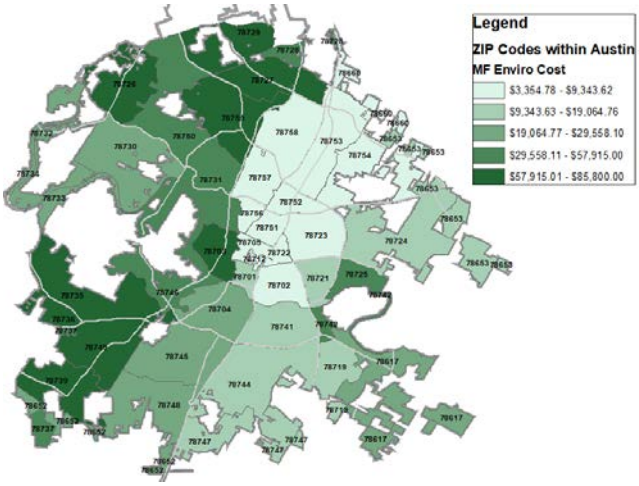
We analyzed three types of costs which can vary by location: added costs for tree regulations, environmental regulations, and rezoning. Unlike construction costs, these costs can vary significantly by location. While these are only estimates of the exact costs associated with these variables, the spatial patterns are the most important. These patterns help to demonstrate which ZIP codes are costliest for housing development.

Tree care costs were generally concentrated in the Central and Western areas of the city. This is logical, since these areas of town tend to be more heavily wooded. Some of the higher values

for tree costs near the urban core may also indicate that, though trees may be slightly less numerous, it is extremely difficult to build without disturbing those that remain. Environmental costs reflect additional costs brought by water quality and flood control regulations. As a result, costs are much heavier in West Austin, where the Edwards Aquifer recharge zone and Barton Springs Overlay add to the cost of development. This study did not compute the environmental benefits provided by tree and environmental regulations.

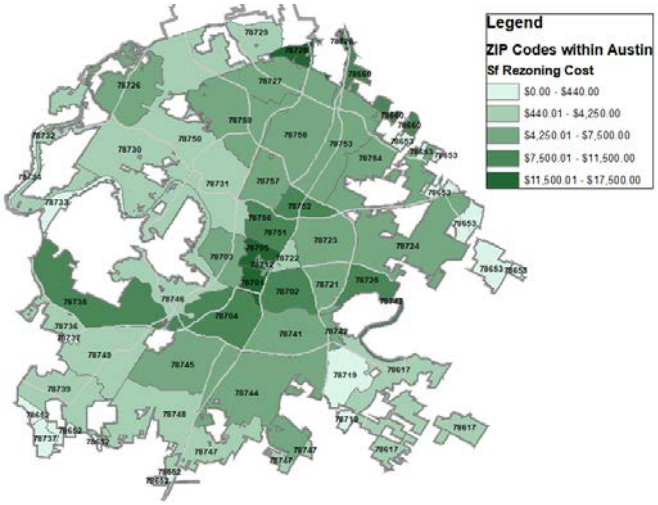
Added Cost by ZIP Code: Tree Care (L) and Environmental Regulations (R), Multifamily

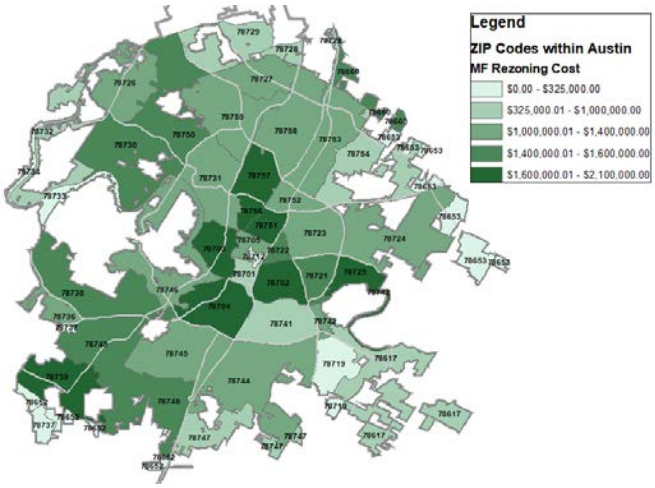




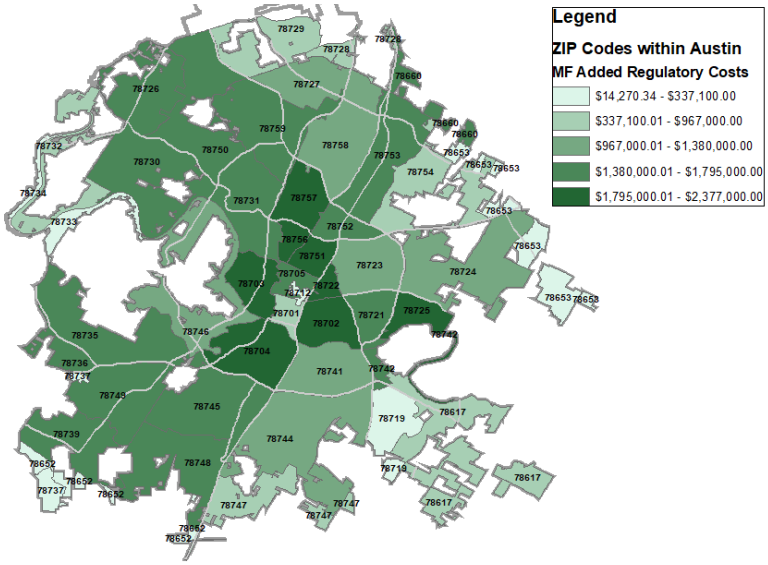
Rezoning represented a much greater cost for multifamily housing than single-family housing in our models, likely owing to the pervasiveness of low-density zoning in the City of Austin's land development code. These costs are greatest in the neighborhoods immediately surrounding the urban core. Further out, we see that West Austin tends to be more permissive of single-family housing than multifamily housing.

Added Cost by ZIP Code: Rezoning, Single-Family (L) and Multifamily (R)





Added Regulatory Costs by ZIP Code



When these costs are added, we see that regulatory costs are heaviest in Central and West Austin. These added costs, while insignificant compared to land and construction costs, can be a barrier to housing development. When evaluating the dollar amount of added costs, it should once again be noted that values are derived from an aggregation of all possible sites within a ZIP code. In the actual development process, numerous sites will be deemed infeasible for development for reasons that may include the steep added costs of development. As a result, some of these dollar amounts may represent costs that are not borne out in practice as certain sites are passed over for certain forms of development.

This is an incomplete analysis of the types of additional costs which can spur, or hinder, housing development. For additional perspective on the development process, we interviewed a number of local stakeholders. Our next section discusses the results of our surveys and semi-structured interviews and analyzes their themes in the context of Austin's housing market to identify the challenges housing developers face.

THEMATIC ANALYSIS

The common themes that emerged across our 10 interviews with Austin housing development experts reveal important cost related context. While many costs in housing development may be easy to quantify - such as permit fees, construction materials, and the cost of land - some other costs are harder to put a number to, especially without context. Additionally, many costs may increase as certain stages of the development process become longer or shorter. Our coding and thematic analysis of the interviews we conducted help to illustrate this relationship.

The most prevalent theme in our analysis concerned bureaucracy. The matter of bureaucracy within housing development is in itself overly broad, so we later identified several sub-codes within the bureaucracy tent to make our analysis more specific. The simplest way to summarize the overarching theme is that the bureaucracy within the permitting process, imbued in the

Land Development Code, and in the construction inspection process is causing delays that many developers feel are excessive. As one developer put it, "The amount of delay time has increased exponentially over the last 4 to 5 years and it can be very impactful. All that carrying cost associated with holding a piece of property does add up."[43]

Sub codes in our thematic analysis revealed the nuances within bureaucracy that lead to delays. The first sub-code is reviewer turnover. Developers reveal that as permit reviewers leave and are replaced, often they are forced to begin the permit review process from the beginning again, and address entirely new comments. High turnover rates amongst reviewers also make it difficult for planners to get ahold of reviewers in a timely manner. Another major facet of bureaucracy in the process is in the conflicting priorities amongst City departments. One developer explains, “So many different entities within the City have their own priorities and they don’t talk to each other so it’s just a matter of figuring out how to prioritize City commitments.”[44] Another developer outlined an example where their permits were caught between the Austin Watershed Department and Austin Water because one department wanted a site to institute erosion control using grass, and the other department wanted to conserve water by having the site use gravel instead of grass.[45]

Two other themes that arose and were common were Complexity and Predictability. By and large, responses with these codes were in reference to what developers felt like was a degree of subjectivity in the permit review process and the Land Development Code. This not only increased the cost of projects by extending the time-frame, but as one developer noted, it “adds risk,” since it makes it difficult to know what types of expenses developers will be incurring throughout the various stages of the process.[46]

Finally, while a developer may be able to calculate in the end how much they spent on a project, what is more difficult to quantify is the opportunity-cost of developing housing in Austin. Several developers noted that as processes become more drawn out in Austin, it becomes harder for them to ignore the lost revenue from projects they must delay starting as they struggle to complete their current ones. One developer notes that this is a cost not just to developers themselves, but to the Austin community as well, “So if it takes me a year to build a house in the City of Austin, but it takes me 6 months to build a house in the City of Houston, then basically what we’re saying is that for every one house I could produce in Austin, I could produce 2 units in Houston. There is a cost to society in that because look at us we’re in a housing shortage.”[47]

Ultimately, it is hard to know exactly what the cost of delays and bureaucracy will cost developers and the entire Austin housing market. What is clear is that added time means added

costs, and in the end, those costs are passed on to the user. These insights by our experts could prove to be key in taming the cost of housing in Austin in the future.

RECOMMENDATIONS

1) *Determine if the Travis Central Appraisal District tends to undervalue property market values, and if so by what average rate.*

As previously discussed, Texas' position as a non-disclosure state makes it challenging to gather accurate data on the market value of land and properties. As such, in this project we used TCAD data despite the common assumption among developers and city staff we spoke with that this data source tends to undervalue properties. Further research into the true cost of housing should include collaboration with interested Austin-based developers to cross-check real sale prices against TCAD data to find an accurate percentage by which to increase TCAD valuations in future research, if such an increase is needed.

2) *Proactively Track Permit Review and Fee Timelines More Accurately*

Currently available data records the date certain fees and review processes are either paid or completed respectively, however, lacking a clearly defined start date for projects limits the City's ability to track which fees or review processes are taking significantly longer times than others. Having access to clear data in this regard would be a boon to future efforts to make the current fee and permit review process more efficient, and therefore reduce costs for housing development by reducing wait times in between key deliverables, permitting, and fee activities. Establishing clear start dates for each project would provide the pivotal reference point required to gather this valuable information.

3) *Consider factors aside from costs*

In addition to acknowledging these shortcomings in data collection, it is important to also contextualize the type of data we have gathered. Housing developers do not consider costs

alone. Instead, they balance those costs against a site's potential return, risk, and opportunity cost. Our analysis does not show the stifling effect of policies which do not drive monetary costs but instead limit a site's potential use, such as compatibility standards. Our conclusions should be contextualized alongside other studies in Austin which have explored some of these impacts in greater detail.

4) Binding Due Diligence - Making use of Development Assessments

One of the major themes across interviews with developers and development experts was concerning the lack of predictability within the permit review process. Many of our participants spoke about how often comments they received would change, sometimes depending on the day, or even depending on the reviewer. Making the permitting process more predictable for developers would cut down on risk, and on design and carrying costs for developers. To do this, one of our participants suggested making use of the Development Assessment service provided by the Development Services Department. If the results of a Development Assessment were to be delivered in writing, and considered binding, then this could help to significantly cut down on risk and guess-work for developers. For example, if the fee assessments provided by a Project Assessment were to be considered binding - such that later when actual plans were submitted for review later, the developer would be assured that the feedback they received during the Development Assessment would be the same feedback they were to receive now - then developers would know before starting a project exactly what kinds of fees and permits to expect to pay, and that would make planning easier and quicker.

5) Creating a Sunset Commission to Tackle the Land Development Code

Another suggestion which came from one of our interview participants was to institute a Sunset Commission similar to the ones used by the Texas Legislature to review laws and State Agencies. Just like the Statewide Commission, this group would study the existing Land Development Code, and be tasked with identifying codes that may be outdated, or detrimental to the development process. This commission would similarly be empowered to convene meetings, invite testimony from experts, conduct research, gather data from all pertinent City departments, and make recommendations to City Council regarding the LDC.

6) Update neighborhood plans regularly

Neighborhood plans were originally intended to be reviewed and updated every five years. Currently, none have been reviewed or updated for the last 20 years. Returning to this practice could help the City to identify places in the plans which are hindering development unnecessarily.

APPENDICES

APPENDIX A - COSTS & FEES

TABLE 1.1 - PER-SQUARE-FOOT MEAN AND MEDIAN PARCEL-LEVEL PROPERTY MARKET VALUES BY ZIP CODE (2022)

City of Austin Zip Codes: Per-Square-Foot Mean and Median Parcel-level Property Market Values, 2022					
ZIPCODE	MEAN	MEDIAN	ZIPCODE	MEAN	MEDIAN
78617	$ 40	$ 38	78733	$ 154	$ 79
78652	$ 60	$ 54	78734	$ 379	$ 325
78653	$ 47	$ 44	78735	$ 63	$ 63
78660	$ 65	$ 50	78736	$ 47	$ 37
78701	$ 292	$ 208	78737	$ 63	$ 77
78702	$ 91	$ 78	78739	$ 61	$ 61
78703	$ 134	$ 119	78741	$ 59	$ 45
78704	$ 103	$ 89	78742	$ 21	$ 19
78705	$ 127	$ 104	78744	$ 43	$ 38
78712	$ 97	$ 99	78745	$ 46	$ 45
78719	$ 96	$ 96	78746	$ 84	$ 68
78721	$ 46	$ 43	78747	$ 48	$ 46
78722	$ 68	$ 64	78748	$ 48	$ 48
78723	$ 78	$ 46	78749	$ 53	$ 53
78724	$ 41	$ 38	78750	$ 52	$ 49
78725	$ 50	$ 54	78751	$ 89	$ 80
78726	$ 55	$ 56	78752	$ 62	$ 45
78727	$ 48	$ 47	78753	$ 36	$ 34
78728	$ 105	$ 103	78754	$ 44	$ 44
78729	$ 42	$ 48	78756	$ 88	$ 80
78730	$ 66	$ 58	78757	$ 61	$ 58
78731	$ 81	$ 70	78758	$ 48	$ 42
78732	$ 55	$ 44	78759	$ 59	$ 52

Source: Travis Central Appraisal District, February 2022 Appraisal Roll Export

TABLE 1.2 - GENERAL FEE DATA BY SELECT HOUSING SUBTYPES BY FISCAL YEAR (2017-2022)

Column La	Distinct Count of PROP_STREET_ADDRESS					Sum of BUILDING_COVERAGE_SQ_FT				Sum of FEE_AMOUNT					Total Distinct Count of PROP_STREET_ADDRESS	Total Sum of BUILDING_COVERAGE_SQ_FT	Total Sum of FEE_AMOUNT
Row Labels	FY_2017	FY_2019	FY_2020	FY_2021	FY_2022	FY_2019	FY_2020	FY_2021	FY_2022	FY_2017	FY_2019	FY_2020	FY_2021	FY_2022			
C- 104 Three & Four Family Bldgs				1									$ 44		1		$ 44
C- 105 Five or More Family Bldgs				10	1								$ 24,934	$ 128,915	11		$ 153,849
R- 101 Single Family Houses	1	5	61	1,971	11	50,544	422,958	25,741,872	338,489	$ 356	$ 9,915	$ 86,439	$3,581,022	$ 60,404	1,980	26,553,863	$ 3,738,137
R- 102 Secondary Apartment		1	5	95	1	5,500	57,151	1,244,982	17,224		$ 1,127	$ 7,621	$ 128,437	$ 1,207	97	1,324,857	$ 138,393
R- 103 Two Family Bldgs		3	1	43		12,824	9,172	1,088,640			$ 2,629	$ 638	$ 73,423		43	1,110,636	$ 76,690
Grand Total	1	9	67	2,071	13	68,868	489,281	28,075,494	355,713	$ 356	$ 13,672	$ 94,698	$3,807,861	$ 190,527	2,083	28,989,356	$ 4,107,113

Source: City of Austin Development Services Department

TABLE 1.3 - GENERAL FEE DATA BY FEE DESCRIPTION FOR SELECT SUBTYPES: R-101, R-103, R-103, C-104, AND C-105 (FY_2021)

Fee Descriptions	Distinct Count of PROP_STREET_ADDRESS	Sum of BUILDING_COVERAGE_SQ_FT	Sum of LOT_TOTAL_SQ_FT	Sum of FEE_AMOUNT	Average of FEE_AMOUNT
AE Customer in Aid to Construction Recovery Fee	7	15,693	55,357	$22,133	$ 3,162
Building Permit Fee	2,056	3,728,398	11,461,145	$790,508	$ 356
Commercial Plan Review Application Processing Fee	1			$345	$ 115
Commercial-Completeness Check Fee(Expedited)	1			$765	$ 255
Energy Fee	1,934	3,548,177	10,830,542	$115,797	$ 55
Environmental Inspection (deposit)	841	1,856,259	5,361,404	$129,547	$ 139
Environmental Reinspection Fee	1	4,545	15,405	$50	$ 50
Expedited Intake Fee(Comm/Resid)	98	401,485	1,416,060	$24,436	$ 149
Expedited Plan Review Fee-Commercial	1			$8,772	$ 2,924
Expedited Plan Review Fee-Residential	133	554,957	1,935,690	$339,074	$ 1,521
Expired Building Permit Fee	5	7,538	28,017	$95	$ 19
Fire Final (Certificate of Occupancy) Inspection	9			$984	$ 109
Follow Up Review (Building)	1	2,110	7,284	$380	$ 380
Follow Up Review(Mechanical)	1			$393	$ 131
Follow Up Review(Trees)	1	3,946	11,980	$770	$ 385
Follow Up Review(Zoning)	7	25,965	89,826	$4,144	$ 377
Foundation pre-pour tree inspection	123	305,347	1,118,457	$22,767	$ 185
Minor Plan Revision	1			$1,266	$ 422
Reinspection Fee	1,121	1,965,719	6,077,748	$88,625	$ 77
Resid Prelim Review-Erosion Hazard Zone	38	77,582	236,592	$8,740	$ 153
Resid Prelim Review-Floodplain	93	148,753	704,865	$18,235	$ 169
Resid Prelim Review-Grading & Drainage	52	99,546	275,972	$9,450	$ 178
Residential Erosion Hazard Zone Review	7	25,706	64,995	$2,612	$ 327
Residential Floodplain Review	2	4,090	14,569	$871	$ 436
Residential Grading & Drainage Review	6	13,494	40,403	$2,214	$ 369
Residential Plan Review addt'l dwelling over two	6	53,256	95,200	$2,669	$ 61
Residential Plan Review Application Processing Fee	1,162	2,290,033	6,791,461	$112,553	$ 84
Residential Plan Review Fee	1,160	2,199,628	6,513,450	$1,134,563	$ 872
Residential Plan Review Resubmittal	59	159,113	649,327	$31,210	$ 411
Residential Plan Revision Fee Major	24	63,810	179,364	$12,223	$ 489
Residential Plan Revision Fee Minor	36	155,904	587,528	$2,699	$ 43
Residential-Completeness Check Fee(Expedited)	133	557,067	1,942,974	$436,560	$ 1,949
TCO Renewal (Bldg)	7	8,020	10,677	$377	$ 54
Technology Surcharge-DSD	2,063	7,902,769	24,929,317	$142,380	$ 31
Temporary Certificate of Occupancy (Bldg)	24	30,364	98,930	$1,556	$ 62
Tree Insp-Residential(New Construction)	186	465,409	1,875,212	$85,749	$ 461
Tree Plan Review-Residential	79	264,654	988,708	$43,932	$ 414
Tree Plan Review-Residential(Update)	12	42,058	287,738	$3,265	$ 181
Tree Re-Inspection Fee	28	75,042	278,416	$6,636	$ 237
Volume Builder addt'l dwelling over two	1	-	-	$122,520	$ 122,520
Volume Builder Plan Review - per unit	637	1,011,754	3,074,079	$75,864	$ 114
WPD - Environmental Reinspection Fee	1	2,500	8,470	$133	$ 133
Zoning Review Fee	1	4,800	13,574	$0	$ -
Grand Total	2,071	28,075,494	88,070,734	$3,807,861	$ 240

Source: City of Austin Development Services Department

TABLE 1.4 - GENERAL FEE DATA BY ZIP CODE FOR SELECT SUBTYPES: R-101, R-103, R-103, C-104, AND C-105 (FY_2021)

	Distinct Count of PROP_STREET_ADDRESS					Average of FEE_AMOUNT					Total Distinct Count of PROP_STREET_ADDRESS	Total Average of FEE_AMOUNT	Total Sum of FEE_AMOUNT
Zip Code	c-104	C-105	R-101	R-102	R-103	c-104	C-105	R-101	R-102	R-103			
78617			110		1			$ 136		$ 134	111	$ 136	$ 95,544
78652			21	1				$ 125	$ 250		22	$ 132	$ 20,142
78653			168					$ 195			168	$ 195	$ 219,666
78654			2					$ 211			2	$ 211	$ 2,324
78660			284					$ 223			284	$ 223	$ 451,761
78702			25	21	5			$ 428	$ 310	$ 384	40	$ 393	$ 177,434
78703			8					$ 323			8	$ 323	$ 25,521
78704			42	8	2			$ 495	$ 336	$ 401	48	$ 479	$ 256,150
78705				2					$ 237		2	$ 237	$ 2,843
78717		6	46				$ 234	$ 207			52	$ 211	$ 65,121
78721			22	11	2			$ 381	$ 223	$ 368	32	$ 356	$ 102,177
78722			4	6				$ 454	$ 225		8	$ 352	$ 34,189
78723			138	2	4			$ 130	$ 128	$ 172	143	$ 131	$ 183,306
78724			170					$ 203			170	$ 203	$ 259,694
78725			1					$ 229			1	$ 229	$ 2,983
78726			3					$ 234			3	$ 234	$ 3,748
78727			2		1			$ -		$ -	3	$ -	$ -
78731			14		4			$ 427		$ 6	18	$ 324	$ 69,426
78732			5					$ 419			5	$ 419	$ 18,851
78735			16					$ 266			16	$ 266	$ 29,281
78739			9					$ 227			9	$ 227	$ 7,494
78741			16	11				$ 569	$ 233		19	$ 491	$ 91,308
78742			1					$ 226			1	$ 226	$ 2,940
78744			344	1	3			$ 228	$ 118	$ 229	347	$ 228	$ 533,291
78745		4	26	12	1		$ 337	$ 490	$ 287	$ 186	35	$ 438	$ 173,046
78746			4					$ 268			4	$ 268	$ 9,636
78747			147		14			$ 112		$ 5	161	$ 95	$ 103,331
78748			113					$ 309			113	$ 309	$ 206,499
78749				1					$ 248		1	$ 248	$ 1,485
78750			1					$ 206			1	$ 206	$ 1,854
78751			7	4				$ 458	$ 267		10	$ 402	$ 39,385
78752			5	4	5			$ 498	$ 122	$ 480	10	$ 450	$ 58,042
78754			172					$ 230			172	$ 230	$ 295,921
78756	1		9	2		$ 44		$ 440	$ 134		10	$ 418	$ 43,094
78757			29	8	1			$ 512	$ 170	$ 178	35	$ 458	$ 192,513
78758			6	1				$ 342	$ 112		6	$ 325	$ 25,641
78759			1					$ 202			1	$ 202	$ 2,221
Grand Total	1	10	1971	95	43	$ 44	$ 290	$ 242	$ 254	$ 154	2071	$ 240	$ 3,807,861

Source: City of Austin Development Services Department

TABLE 1.5 - AVERAGE COMMON FEE TOTALS BY ZIP CODE FOR SELECT SUBTYPES: R-101, R-103, R-103, C-104, AND C-105 (FY_2021)

	Average Total Fees (Common)					+ Additional Costs to Expedite				
Zip Code	R-101	R-102	R-103	c-104	C-105	R-101 Ex	R-102 Ex	R-103 Ex	C-104 Ex	C-105 Ex
78617	$1,883	n/a	$ 538	n/a	n/a	n/a	n/a	n/a	n/a	n/a
78652	$ 671	$1,455	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
78653	$1,897	n/a	n/a	n/a	n/a	$ 5,500	n/a	n/a	n/a	n/a
78654	$1,658	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
78660	$2,344	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
78702	$2,433	$2,377	$1,229	n/a	n/a	$ 6,055	$ 5,965	$ 4,525	n/a	n/a
78703	$2,529	n/a	n/a	n/a	n/a	$ 6,211	n/a	n/a	n/a	n/a
78704	$2,470	$2,363	$1,248	n/a	n/a	$ 6,057	$ 6,045	$ 4,930	n/a	n/a
78705	n/a	$1,954	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
78717	$1,711	n/a	n/a	n/a	$1,332	n/a	n/a	n/a	n/a	n/a
78721	$2,370	$1,506	$2,266	n/a	n/a	$ 6,052	$ 5,188	$ 5,562	n/a	n/a
78722	$2,252	$2,195	n/a	n/a	n/a	$ 5,815	n/a	n/a	n/a	n/a
78723	$1,596	$1,039	$1,412	n/a	n/a	$ 5,278	n/a	$ 4,708	n/a	n/a
78724	$1,749	n/a	n/a	n/a	n/a	$ 5,045	n/a	n/a	n/a	n/a
78725	$1,996	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
78726	$1,641	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
78727	$ -	$ -	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
78731	$1,264	n/a	$ 77	n/a	n/a	$ 4,895	n/a	n/a	n/a	n/a
78732	$2,641	n/a	n/a	n/a	n/a	$ 6,323	n/a	n/a	n/a	n/a
78735	$2,191	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
78739	$1,623	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
78741	$2,299	$2,452	n/a	n/a	n/a	$ 5,902	n/a	n/a	n/a	n/a
78742	$2,034	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
78744	$1,903	$ 473	$1,777	n/a	n/a	$ 5,585	n/a	n/a	n/a	n/a
78745	$2,352	$2,252	$ 186	n/a	$1,123	$ 5,998	$ 5,934	n/a	n/a	n/a
78746	$2,522	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
78747	$1,873	n/a	$ 77	n/a	n/a	n/a	n/a	n/a	n/a	n/a
78748	$ 856	n/a	n/a	n/a	n/a	$ 4,538	n/a	n/a	n/a	n/a
78749	n/a	$1,457	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
78750	$1,741	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
78751	$2,254	$1,956	n/a	n/a	n/a	$ 5,936	n/a	n/a	n/a	n/a
78752	$2,305	$ 465	$2,557	n/a	n/a	$ 5,908	n/a	$ 6,239	n/a	n/a
78754	$1,884	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
78756	$2,260	$ 403	n/a	$ 44	n/a	$ 5,909	n/a	n/a	n/a	n/a
78757	$2,494	$1,982	$2,245	n/a	n/a	$ 6,129	n/a	n/a	n/a	n/a
78758	$2,451	$ 425	n/a	n/a	n/a	$ 5,747	n/a	n/a	n/a	n/a
78759	$1,836	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a

Source: City of Austin Development Services Department

APPENDIX B

SECTION A: HYPOTHETICAL PRO FORMA ASSUMPTIONS

Single-Family

Lot size of 5,977 square feet producing 1 unit with a gross building floor area of 2,092 square feet. Assumptions include 35% building coverage, $232,559.11 in construction costs, and 21% of overall soft costs.

Duplex

Lot size of 5,977 square feet producing 2 units with a gross building floor area of 2,092 square feet. Assumptions include 35% building coverage, $252,094.57 in construction costs, and 21% of overall soft costs.

Townhome

Lot size of 20,000 square feet producing 5 units with a gross building floor area of 8,000 square feet. Assumptions include 40% building coverage, $964,000 in construction costs, and 21% of overall soft costs.

Low-Rise

Lot size of 43,909 square feet producing 30 units with a gross building floor area of 24,150 square feet. Assumptions include 55% building coverage, $4,340,133,44 in construction costs, and 21% of overall soft costs.

Multifamily

Lot size of 173,271 square feet producing 156 units with a gross building floor area of 121,290 square feet. Assumptions include 70% building coverage, $18,554,701 in construction costs, and 21% of overall soft costs.

SECTION B: VARIABLE COST METHODOLOGIES

For water quality or flood control costs, we calculate the percent of land within a ZIP code that is regulated by an overlay that would require additional costs and multiply those costs by the total percentage. We selected overlays and arrived at a cost estimate based on a review of public data on development costs schedules from the Texas Department of Housing and Community Affairs (TDHCA) and based on stakeholder responses. For water quality and

floodplain overlays, we combine the Barton Springs Zone, Edwards Aquifer Recharge Zone, and City of Austin fully-developed floodplain and measure the percentage of each ZIP covered by any of these overlays. We assume that these overlays add $550/sq. ft. in costs for environmental site work and impact assessments. In reality, additional design and engineering costs would likely apply as well.

For rezoning costs, we take Austin's zoning code and find the portion of developable land that does not match the desired zoning. Based on stakeholder response, we estimate the rezoning process would increase total costs by 5%, which included additional consultant costs, City fees and carrying costs associated with delay. This cost premium is adjusted further by the percentage of land requiring rezone in a ZIP.

For tree care costs, we used public data on the number of tree permits per ZIP code in the past year and divided this by the total number of residential permits over the same time frame, producing the percentage of residential permits requiring tree work. Based on City of Austin fee schedules and stakeholder responses, we estimate each tree permit requires approximately $2,600 in fees for single-family density and $3,325 in fees for multifamily density, plus approximately $2.15 per square foot in professional tree care services.

APPENDIX C - QUESTIONNAIRE QUESTIONS

Name:

Company Name:

Title:

Which of these types best describes the form of housing you are most familiar with or experienced in developing?

- Multi-Family
- Single-Family

Which of these types best describes the form of housing you are most familiar with or experienced in developing?

- Market Rate Housing
- Affordable Housing

As a percentage of total development costs, what are the minimum and maximum amounts a developer can expect to devote to soft costs? (E.g. "15-30%")[Soft Costs include any costs that are not the cost of acquiring property or construction costs]

As a percentage of your total budget, approximately how much do you spend per project for the cost of architectural design and engineering? (Give a low and high estimate. E.g. "0 to 5%)

As a percentage of your total budget, approximately how much do you spend per project for the cost of insurance? (Give a low and high estimate. E.g. "0 to 5%)

As a percentage of your total budget, approximately how much do you spend per project for the cost of legal fees? (Give a low and high estimate. E.g. "0 to 5%)

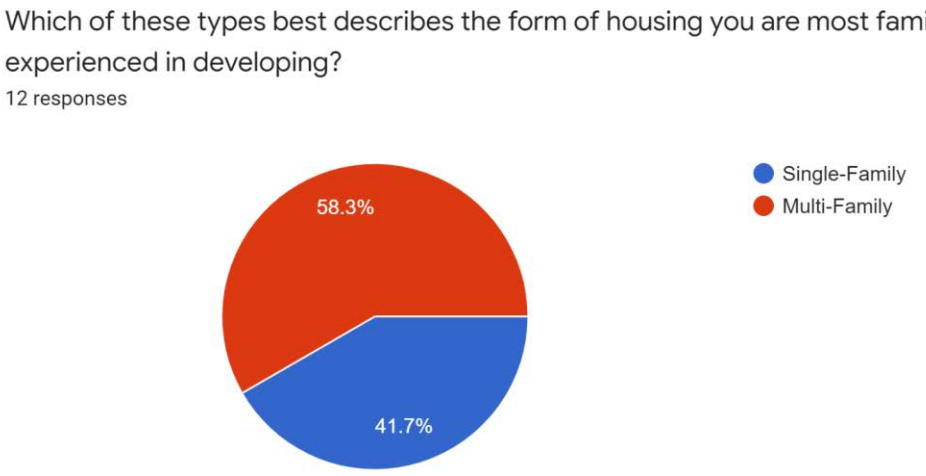
Are there any other soft costs which make up a significant portion of your budget that we have not asked about? What are those costs? Approximately what percentage of your budget do these costs make up? (Give a low and a high estimate)

If you have pursued a rezoning for a project before, approximately how much in additional soft costs did you bear (as a percentage of total costs)? [Enter N/A if not applicable]

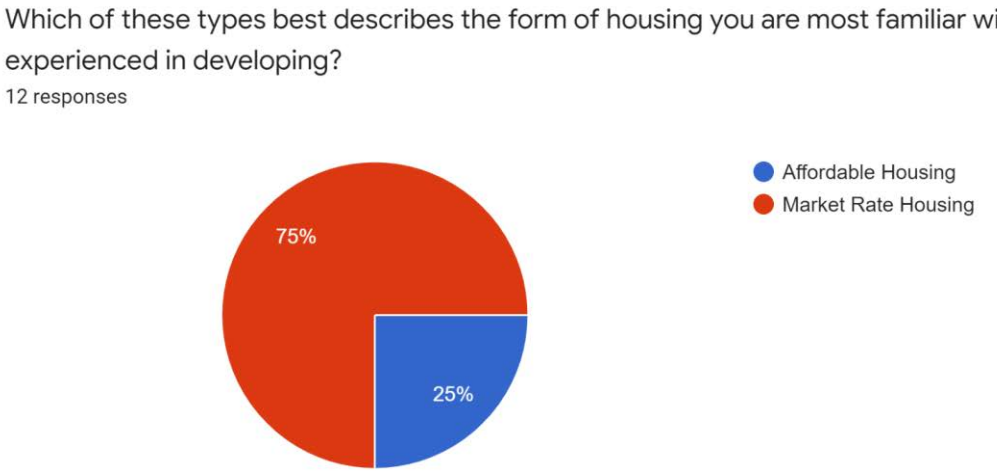
In a couple sentences, describe your approach to project financing. Do you use loans, equity, or both? How does this impact costs?

APPENDIX D - QUESTIONNAIRE RESULTS

Question 4



Question 5



Question 6

As a percentage of total development costs, what are the minimum and maximum amounts a developer can expect to devote to soft costs? (E.g. "15-30%")[Soft Costs include any costs that are not the cost of acquiring property or construction costs]
I am not sure I have an answer for this

25% on the high side
Will need to ask some clients this question.
For New construction soft costs (including financing costs and operating reserve, but not including developer fee) is approx 10%costs. I have noticed that other developers have higher soft costs than us. some funders have limits of 30%
15%
20-30%
10-25%
15-20%
5%
10-35% (assumption from a consultant side)
20-25%
For projects less than $50M in construction cost, soft cost is 12-18%, for projects over $50M percentage can drop closer to 8-12%

Question 7

As a percentage of your total budget, approximately how much do you spend per project for the cost of architectural design and engineering? (Give a low and high estimate. E.g. "0 to 5%)
5
6%
Will need to ask some clients this question.
2%
5%-10%
5%
1-3%
5-7%
4%
N/A, we are the engineer
7-10%
About half of the soft cost is for professional services so if the total soft cost is 12% then professional

services fee is about 6%, the rest is city review fee, parkland fee etc

Question 8

As a percentage of your total budget, approximately how much do you spend per project for the cost of insurance? (Give a low and high estimate. E.g. "0 to 5%)
Small, ends up close to .2%
1%
Will need to ask some clients this question.
less than 1%
n/a
1.50%
1.50%
1-2%
1%
N/A
1-3%
If you meant professional services insurance then it's small since the firms usually carry that themselves, maybe 0.5% if the project is big enough where it needs a special policy. If you also include performance bond for the GC then it would be higher 1-2% approximately

Question 9

As a percentage of your total budget, approximately how much do you spend per project for the cost of legal fees? (Give a low and high estimate. E.g. "0 to 5%)
Even smaller, .05%.
5%
Will need to ask some clients this question.
less than 1%
0%-5%
1.50%
1%

1%-2%
1%
unknown, but we have seen the need for a land use attorney much more frequently
1-2%
Relatively, little, probably less than 1%

Question 10

Are there any other soft costs which make up a significant portion of your budget that we have not asked about? What are those costs? Approximately what percentage of your budget do these costs make up? (Give a low and a high estimate)
Interest on loans, if using hard money very substantial part of costs.
Depends more about what issues affect the property. Environmental and flood plain matters can significantly affect overall budgets and even the smallest properties can have an extra $150k for those items. Very hard to provide a % when the costs can vary widely.
A very large portion of our client's soft costs include City fees which are made up of utility impact fees, street impact fees, density bonuses, parkland dedication fees, etc. These can be a very large percentage of the project budget that greatly exceeds design soft costs. We can give you some examples for specific projects.
less than 1%
Permitting fees, impact fees
Financing Costs are major!, Construction Interest is usually the single largest item in a budget next to the architecture and/or permits.
Municipal Fees (1-3%), Equity Broker (.5-1%), Debt Broker (.5-1%)
Yes, holding costs due to the long duration of completing housing in Austin.
No
N/A
No
Permitting related cost especially in cities like Austin, parkland fee, traffic impact fee, utilities impact fee etc unless waived by the City. It could be in the millions for high density projects 300-500 units

Question 11

If you have pursued a rezoning for a project before, approximately how much in additional soft

costs did you bear (as a percentage of total costs)? [Enter N/A if not applicable]
N/A
We have done 200 zoning cases and the $ vary wildly depending on the rezoning and the neighborhood. On the low side it can be $30000 for a small $500k project and it can be +$1mm for a larger project of $20mm or more. For (anonymous project) rezoning, total soft costs for just the rezoning was $2mm
I'd estimate our clients spend over 6 figures on zoning pursuits in engineering and land use attorney fees. The City also tacks on addition density bonus and development costs through the re-zone.
costs aren't the issue, it's the time to rezone. cost is less than 1%
5%
$600,000
.5% in consultant fees, 0-1% in land carrying costs
$25,000
n/a
N/A
N/A
Unless a major zoning category like PUD, the cost is relatively low $50k-100k so less than 1%. If you have to spend more that means the chance of success was very low to begin with.

Question 12

In a couple sentences, describe your approach to project financing. Do you use loans, equity, or both? How does this impact costs?
Investor and traditional bank, on lower end of costs compared to someone who uses hard money
Both. And it all adds carrying costs for the amount of time to get permits.
N/A
tax credit equity, government funds, grants and fundraising and we use internal funds for the gap or as a temporary source of funds.
n/a
Both. Loans are cheaper than equity which requires a 20% return but Equity is more patient.
We typically use interest-only construction loans, and two tiers of equity (LP and Co-GP).
Equity, debt. Interest rates and preferred return impact holding costs.

Loans, and personal capital
N/A
I prefer to use equity for land acquisition and loans for development. The pref return on equity is higher than loan interest rate but that equity better insulates against a downturn in the market.
For projects over $10M in construction cost, the majority percentage of project financing is public subsidy (city, county, state, federal). The next vehicle is sweat equity from development partners (civil, arch, etc). The remaining gap we would strive to fund with out of pocket cash to avoid private loan where possible.

APPENDIX E - INTERVIEW QUESTIONS

Take me through the steps/stages of a development from start to finish? How do you generally order the tasks you must complete?

What are the costs (categories is fine) associated with each step?

At what stages do you tend to see greater delays, and why?

How do these delays impact costs?

How do you plan for the impact of these delays on cost?

Can you describe some of the more complex regulations you have to comply with in Austin?

What factors can lead to reduced soft costs for a project in Austin?

What factors can increase soft costs for a project in Austin?

How do land use regulations impact a project's feasibility? OR can you describe how the following regulations impact a project's feasibility? (list various regulations)

- Restrictive base zoning
- McMansion Ordinance and/or compatibility
- Neighborhood Plans
- Barton Springs Overlay and/or Edwards Aquifer regulatory zone

Which of Austin's land use regulations have the greatest impact on a project's feasibility?

Hypothetically, let us assume you want to develop a project that must navigate some of the most difficult regulatory restrictions. For example, let us say you want to rezone, waive compatibility requirements, build around heritage trees, and navigate a neighborhood combined conservation district. Is there any amount of money that could make this possible?

APPENDIX F - CODES

Fees

Bureaucracy

- Turnover
- Timeframe
- Different scales of government
- Conflicting Priorities and Goals

Potential Use

- Scale
- Location
- Density
- Jurisdiction

Financing

Institutional knowledge

Complexity

Predictability

Feasibility

Estimates

Descriptions

Opportunity-Cost

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[42] Montgomery County Planning Department, "Silver Spring Downtown and Adjacent Communities Plan," 12.

[43] Anonymous participant #1, in discussion with the authors. April 6, 2022.

[44] Anonymous participant #2, in discussion with the authors. April 6, 2022.

[45] Anonymous participant #3, in discussion with the authors. April 13, 2022.

[46] Anonymous participant #4, in discussion with the authors. April 14, 2022.

[47] Anonymous participant #3, in discussion with the authors. April 13, 2022.

Local Affordable Housing Challenges: Reducing the Cost of Housing Development in Austin

LBJ School of Public Affairs Policy Research Project: Fall 2022

Director: Sherri R. Greenberg

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State of Affordable Housing in Austin

The City of Austin is experiencing a significant affordable housing challenge. In the past decade, rapid population growth and a booming high-tech industry have contributed to soaring homeownership and rental prices.[1] In 2010, Austin was, by some accounts, considered to be one of the most affordable cities to live in America.[2] A little over a decade later, it is now considered one of the least affordable metropolitan areas for homeownership in the country, according to a Zillow forecast.[3]

The median home sale price has "more than doubled since 2011."[4] Access to affordable rental units in Austin has also declined. Between 2012 and 2017, median rent prices in Austin increased by 28%, which has "led to the displacement of extremely low-income renters and an increased need for publicly supported housing," according to a Root Policy Research Report published for the City of Austin.[5] The city has also seen dramatic, more recent surges in both home and rental prices. The median home sale price within Austin increased 20% to $550,000 between January of 2021 and January of 2022.[6] The monthly rental cost of an average one-bedroom apartment in that same timeframe also increased 32%.[7] These rental price increases affect a significant number of Austin residents, as nearly half of Austin residents are now renters.[8] Wages for low-and-middle-income earners have not kept up with increased housing costs or higher costs of living in the city generally, while the proportion of high-income earners as a percentage of the population has grown significantly in the last twenty years.[9] [10] This has pushed many former inner-city residents "to the outskirts or out of the city altogether," according to a report commissioned by the City of Austin.[11] Additionally, City of Austin states that "the proportion of homelessness has tracked with overall population growth since 2011," which suggests that the city's expansion is intertwined with growth in the number of houseless individuals.[12] These factors have increased the determination of city officials to develop solutions to the persistent problem of access to affordable housing.

Demographics

Population

The 2020 U.S. Census reveals an increase in the City of Austin's population over the last decade. Between 2010 and 2020, the city's population grew by 171,465, a percentage change of 21.69% (See Table 1). The group with the largest population increase was non-Hispanic Whites, growing by 67,723. Significant population growth also occurred among the Asian population, growing by 36,694, and the Hispanic-Latino population, growing by 34,741. Additionally, the last decade has seen a growth in the number of residents identifying as Two or more races, an increase of 23,510 residents.

Table 1. City of Austin Population Change 2010-2020

Race/Ethnicity	2010	2020	Change	Percentage Change
White	385,271	452,994	67,723	17.58%
African-American	60,760	66,002	5,242	8.63%
Hispanic/Latino	277,707	312,448	34,741	12.51%
Asian	49,159	85,853	36,694	74.64%
Two or More Races	13,677	37,187	23,510	171.89%
Other	1,448	4,841	3,393	234.32%
Am. Indian/Alaska Native	1,967	2,002	35	1.78%
Nat. Hawaiian/Pac.Island	401	528	127	31.67%
Total	790,390	961,855	171,465	21.69%

Source: U.S. Census Bureau Data, 2020 Decennial Census P.L. 94-171 File; City of Austin, 2020 Census: Key Findings

The increase in population and demographic changes in Austin are visible when examining changes within the City Council Districts between 2010 to 2020. The city maintains the "Austin and District Demographics Dashboard" using 2020 U.S. Census Data and ACS 5-Year estimates. The city also has available a district demographics report using 2010 U.S. Census data. The population and demographic changes across districts were calculated using a compilation of the available data from the city. All districts experienced increases in population size and each district now contains nearly 100,000 residents (See Table 2). Comparing changes in population between 2010 to 2020, District 3 experienced the highest increase of non-Hispanic White residents, gaining 14,302. District 6 experienced the highest increase of African American residents with a gain of 1,394. The Hispanic-Latino population experienced the highest increase in District 10, with an increase of 5,794 residents. The Asian population experienced the highest increase in District 6, with an increase of 13,875 residents.

Some districts experienced a marked loss of population among certain racial and ethnic groups. District 6 experienced a loss of 8,539 non-Hispanic White residents. District 3 experienced a loss of 7,775 Hispanic-Latino residents. District 1 experienced a population loss of 3,264 African American residents. These three districts were the only ones to experience a loss in population among racial groups between 2010 and 2020.

Table 2. Demographic Changes in Austin Districts 2010-2020

Districts	2010 Total	2010 Percentages	2020 Total	2020 Percentages	Absolute Change	Percentage Change
District 1 Total Population	**77,807**	**100.0%**	**93,992**	**100%**	**16,185**	21%
Anglo (non-Hispanic White)	18,125	23.3%	27,697	29.47%	9,572	53%
African-American	21,934	28.2%	18,670	19.86%	-3,264	-15%
Hispanic--Latino	33,650	43.2%	37,052	39.42%	3,402	10%
Asian	2,586	3.3%	6,969	7.41%	4,383	169%
Other	1,512	1.9%	3604	3.83%	2,092	138%
District 2 Total Population	**80,004**	**100.0%**	**98,165**	**100%**	**18,161**	23%
Anglo (non-Hispanic White)	16,219	20.3%	23,251	23.69%	7,032	43%
African-American	6,372	8.0%	6,975	7.11%	603	9%
Hispanic--Latino	55,177	69.0%	62,557	63.73%	7,380	13%
Asian	998	1.2%	2,169	2.21%	1,171	117%
Other	1,238	1.5%	3,213	3%	1,975	160%
District 3 Total Population	**79,573**	**100.0%**	**91,533**	**100%**	**11,960**	15%
Anglo (non-Hispanic White)	21,136	26.6%	35,438	39%	14,302	68%
African-American	6,385	8.0%	7,613	8%	1,228	19%
Hispanic--Latino	48,413	60.8%	40,638	44%	-7,775	-16%
Asian	2,230	2.8%	3,847	4%	1,617	73%
Other	1,409	1.8%	3,997	4%	2,588	184%
District 4 Total Population	**79,357**	**100.0%**	**94,936**	**100%**	**15,579**	20%
Anglo (non-Hispanic White)	16,476	20.8%	24,263	25.6%	7,787	47%
African-American	7,532	9.5%	7,966	8.4%	434	6%
Hispanic--Latino	51,756	65.2%	56,201	59.2%	4,445	9%
Asian	2,378	3.0%	3,251	3.4%	873	37%
Other	1,215	1.5%	3,255	3.43%	2,040	168%
District 5 Total Population	**81,532**	**100.0%**	**97,539**	**100%**	**16,007**	20%
Anglo (non-Hispanic White)	48,528	59.5%	53,350	54.70%	4,822	10%
African-American	3,393	4.2%	4,487	4.60%	1,094	32%
Hispanic--Latino	25,293	31.0%	30,558	31.33%	5,265	21%
Asian	2,387	2.9%	3,999	4.10%	1,612	68%
Other	1,931	2.4%	5145	5.27%	3,214	166%
District 6 Total Population	**82,381**	**100.0%**	**95,357**	**100%**	**12,976**	16%
Anglo (non-Hispanic White)	53,049	64.4%	44,510	46.70%	-8,539	-16%
African-American	3,595	4.4%	4,989	5.20%	1,394	39%
Hispanic--Latino	12,460	15.1%	15,810	16.58%	3,350	27%
Asian	10,957	13.3%	24,832	26.04%	13,875	127%
Other	2,320	2.8%	5,216	5.47%	2,896	125%
District 7 Total Population	**80,520**	**100.0%**	**95,095**	**100%**	**14,575**	18%
Anglo (non-Hispanic White)	46,407	57.6%	51,517	54.17%	5,110	11%
African-American	6,279	7.8%	7,038	7.40%	759	12%
Hispanic--Latino	18,022	22.4%	21,764	22.89%	3,742	21%
Asian	7,767	9.6%	9,668	10.17%	1,901	24%
Other	2,045	2.5%	5,108	5.37%	3,063	150%
District 8 Total Population	**77,650**	**100.0%**	**99,093**	**100%**	**21,443**	28%
Anglo (non-Hispanic White)	54,125	69.7%	63,412	63.99%	9,287	17%
African-American	1,714	2.2%	2,121	2.14%	407	24%
Hispanic--Latino	13,760	17.7%	18,469	18.64%	4,709	34%
Asian	6,205	8.0%	9,817	9.91%	3,612	58%
Other	1,846	2.4%	5,274	5.32%	3,428	186%
District 9 Total Population	**79,299**	**100.0%**	**97,690**	**100%**	**18,391**	23%
Anglo (non-Hispanic White)	52,937	66.8%	60,893	62.33%	7,956	15%
African-American	2,758	3.5%	3,602	3.69%	844	31%
Hispanic--Latino	13,631	17.2%	16,084	16.46%	2,453	18%
Asian	7,860	9.9%	12,368	12.66%	4,508	57%
Other	2,113	2.7%	4,743	4.86%	2,630	124%
District 10 Total Population	**80,839**	**100.0%**	**98,455**	**100%**	**17,616**	22%
Anglo (non-Hispanic White)	63,300	78.3%	68,663	69.74%	5,363	8%
African-American	1,348	1.7%	2,541	2.58%	1,193	89%
Hispanic--Latino	7,521	9.3%	13,315	13.52%	5,794	77%
Asian	6,921	8.6%	8,933	9.07%	2,012	29%
Other	1,749	2.2%	5,003	5.08%	3,254	186%
Total	798,962		961,855		162,893	20%

Source: City of Austin Department of Housing and Planning

Median Family Income

For FY 2022, the MFI for a four-person household in the Austin-Round Rock Metropolitan statistical area (MSA) is $110,300,[13] an increase from $98,900 in FY 2021.[14] The U.S. Department of Housing and Urban Development (HUD) defines low-income households as those earning at 80% MFI or below.[15] In the Austin-Round Rock MSA, a low-income household is earning $88, 250 or below in FY 2022; in comparison, low-income households were earning $79,100 in FY 2021. The Department of Housing and Urban Development (HUD) uses available American Community

Survey's (ACS) median family income data in tabulating an area's MFI.[16] Using the available 1-Year 2021 ACS estimate data for City of Austin, differences according to race and ethnicity emerge when disaggregating the MFI data. In 2021, Asian residents had the highest MFI at $147,364, followed by non-Hispanic Whites residents with $143,944 (See Appendix Table 3). In comparison, the MFI for African American residents was $59,835, and for Hispanic residents it was $70,972. Residents identifying as Some Other Race had the lowest MFI, $53,038.

Table 3. MFI for Austin 2021

MFI in the past 12 months (in 2021 inflation-adjusted dollars)	Estimate	Margin of Error
White Alone	132,241	±9,008
White, Not Hispanic or Latino	143,944	±8,951
African-American Alone	59,835	±19,048
Hispanic or Latino	70,972	±10,134
Asian	147,364	±19,893
Two or More Races	89,896	±14,354
Some Other Race	53,038	±10,640
Am. Indian and Native Alaskan	65,556	±33,637
Native Hawaiian and Other Pacific Islander	79,911	±28,911

Source: ACS 2021 1-Year Survey, Tables B19113A-I

Poverty Level

According to the City's Department of Housing and Planning, the poverty rate in Austin for 2021 is 13%.[17] In comparison, the poverty rate for the city was 20.8% in 2010.[18] The City's data is from the U.S. Census Bureau and 1-Year ACS estimates.[19] The Austin and District Demographics Dashboard contains the poverty rate for the city and districts using 2020 ACS 5-Year estimates. From the dashboard, the poverty rate in 2020 was 12.5%.[20] The poverty rate varies across districts in Austin. The poverty rate is lowest in District 8, with a rate of 5.6%. The next lowest rates are found in District 10, at 6.1%, and District 6, at 6.2%. District 9 has the highest poverty rate in the city with a rate of 24.5%, and is closely followed by District 4, with 22.8%, and by District 3, with 20.1%.[21]

Housing and Displacement Data

Housing in Austin City Council Districts

The data on the city's housing supply relies on the 2020 District Demographics Dashboard and Census 2020 Overview. In 2020, the total housing units in Austin was 444,426,[22] with a gain of 90,185 housing units over the last decade.[23] Of the occupied housing units in Austin, District 3 has

the largest percentage of units being occupied by renters, at 73.2%.[24] The next largest percentage of units being occupied by renters is in District 9, at 70.2%.[25] For owner-occupied units, the largest percentage is in District 8, at 66.9%.[26]

Methodology and Data Limitations

The comparison of 2010 and 2020 demographics relies on a report of Austin's district demographics by the City's demographer in 2014, and data from the demographics dashboard for 2020 created by the City's Housing and Planning Department. For demographics and housing supply, both the report and dashboard used the available decennial Census data to create a profile for each of Austin's districts. Additionally, the 2020 dashboard uses available data from the American Community Survey. Even with the comparison of the data, limitations exist. For one, the 2020 dashboard uses the updated 2021 district boundaries while the 2010 report uses the former district boundaries in place in 2013. The comparison of data for a district between 2010 to 2020 will not reflect potential changes in population or housing supply that resulted from the boundary change. There is also the difference in census tracts between 2010 to 2020.

HUD's methodology for calculating an area's MFI uses the ACS estimate but uses a "special tabulation" that tests "for reliability" by determining if the "margin of error for the estimate is less than 50% of the estimate itself and whether the ACS estimate is based on at least 100 survey cases."[27] Austin's MFI is pulled directly from the 1-Year 2021 ACS estimate data without undergoing the special tabulation HUD uses for its MSA MFI.

Displacement in Austin Studies

Over the last few years, the issue of gentrification of Austin neighborhoods, and the subsequent displacement of longtime neighborhood residents has come to the forefront of affordable housing discussions. A collaboration between the University of Texas at Austin's Law School and Community Regional Planning Program led to the creation of the *Uprooted Project*, an online resource on gentrification and displacement. The goal of *Uprooted* is to "[provide] research and policy analysis to inform local actions for combatting displacement in gentrifying neighborhoods" in Texas.[28] There have been two works on the issue of displacement: *Uprooted* (2018) and *Texas Anti-Displacement Toolkit* (2019). The recent Project Connect report, *Nothing about Us Without Us* (2021) relies on the scholarship of the *Uprooted* project to inform Project Connect's anti-displacement initiatives.

Gentrification and Displacement in Austin

Studies have used the term gentrification to describe the process of change that occurs when "higher-income households move into a neighborhood and housing costs rise, changing the character of the neighborhood."[29] Gentrification can cause displacement of residents already living in a neighborhood. Displacement can take various forms: direct, indirect, and cultural.[30] Direct displacement occurs when residents are priced out of their neighborhood due to rising housing costs or are unable to remain due to "eminent domain, lease non-renewals, and evictions to make way for new development, or physical conditions that render their homes uninhabitable."[31] Indirect displacement occurs when low-income residents move out of affordable units and there is a reduction in the number of affordable units available to other low-income residents.[32] Cultural

displacement is a process in which the character of a neighborhood is no longer recognizable to longtime residents due to the increase in higher-income residents.[33]

In addition to the different types of displacement that can occur in a neighborhood, there are vulnerable groups of people. *Uprooted* identified five vulnerable groups who are at risk for displacement in Austin: low-income earners, people of color, individuals 25 and older without a bachelor's degree, families with children living in poverty, and renters.[34] Using the vulnerability indicators along with indicators of demographic changes in Austin neighborhoods, the authors of *Uprooted* identified the area with the greatest risk of displacement as the Eastern Crescent.[35]

Extending through the north and south of East Austin, the Eastern Crescent has seen substantial changes in demographics and an appreciation in the housing market.[36] Residents in the Eastern Crescent could face additional risk of displacement due to Project Connect and related investments. Project Connect has proposed stations, light rail lines, and bus routes that will run through portions of the Eastern Crescent. Although Project Connect will improve transit access for residents in these areas, it also has the potential to create additional displacement by "[raising] property values and [sparking] new development" resulting in displacement.[37]

Demographic Changes

The demographic data for City of Austin reveals potential changes related to the displacement of people of color in East Austin. Districts 1 and 3 contain portions of the Eastern Crescent, an area that has been highlighted by *Uprooted* and *Nothing About Us Without Us* for having ongoing displacement. Between 2010 and 2020, District 1's population changed by 16,185, with an addition of 9,572 non-Hispanic Whites but a loss of 3,264 among its African American population. District 3's population changed by 11,960 with an addition of 14,302 non-Hispanic Whites but a population loss of 7,775 among the Hispanic-Latino population. District 6 was the only district that lost non-Hispanic White residents, 8,539, but it also had a significant positive change in its Asian population. Although there are losses among the African American and Hispanic-Latino population in the east Austin districts that form portions of the Eastern Crescent, it cannot be definitively tied to displacement. The authors of *Uprooted* note the limitation of comparing population changes using Census data as it "does not allow us to actually track who has moved into or out of a neighborhood, let alone where they have come from or where they have gone."[38] The same limitation applies to examining the gain and loss of population in the noted districts.

Displacement History

Although displacement has become a pressing issue in recent years, it has been a feature of Austin's history since the time of Spanish colonization and encroachment in the area. The City of Austin's *Nothing About Us Without Us*, one component of the city's framework for investing in anti-displacement funding from Project Connect, presents a far-reaching history of racial inequities and displacement in Austin that extends back to the time of Spanish colonization.[39] Indigenous peoples have long resided in what we know as Austin. The arrival of the Spanish brought disease and devastation to indigenous populations in Texas, such as the Caddo and Wichita in present-day Austin.[40] In the mid-1800s, the Caddo and Wichita were at odds with settlers and were "later forcibly

removed from their lands by the time Texas joined the Union in 1845."[41] The removal of the Caddo and Wichita from their land is an early starting point for displacement.

Another important group that faced displacement in Austin were freedmen's communities. After the Civil War, communities of former slaves, known as freedmen, began to emerge across the southern United States.[42] Austin was no different, becoming home to numerous freedmen's communities in West Austin, such as Wheatsville and Clarksville. These communities faced hardship induced by the city such as a lack of public services,[43] or were treated as a dumping ground, such as the placement of a city dump in Wheatsville.[44] The 1928 master plan hastened the demise of the freedmen's communities with the push to segregate Black and Latino residents by having them move to East Austin.[45] In addition to Black residents living in West Austin, the 1920s saw Mexican-American residents begin to move into the houses of displaced Black residents along Shoal Creek.[46] The Wood Street settlement, as it came to be known, was home to working class Mexican-Americans until the 1980s when "most of the houses had disappeared due to flooding and demolishment."[47]

As mentioned, the 1928 City Plan led to significant displacement through the creation of districts in east and south Austin specifically for Black and Latino residents. The movement of Black and Latino residents into the eastern and southern portions of the city was part of a strategy to segregate residents through "the legal zoning of segregated municipal services."[48] To continue receiving basic municipal services from the city, Black and Latino communities had to move into East Austin. The movement of Black and Latino residents into East Austin also led to conditions that effectively discouraged investment in the area. In 1935, the Home Owners Loan Corporation (HOLC) produced redlining maps, marking "in red" the Black and Latino neighborhoods in Austin to demonstrate "they were 'dangerous' for investment."[49] Urban geographer Elliot M. Tretter suggests the creation of these redlining maps by HOLC had far reaching consequences for East Austin by "[driving] out financial opportunities for non-white peoples in these areas, [encouraging] spatial segregation, and even [undermining]the capacity of East Austin to maintain the quality of its housing stock."[50] These consequences live on today. City of Austin's report, *Nothing About Us Without Us*, emphasizes the effects of redlining on East Austin. Due to historic underinvestment in East Austin communities, these communities are at greater risk for displacement because of the "lower property values."[51]

Recent Displacement Developments

Displacement is occurring in Austin, but recent developments offer insight into how the city is combatting displacement. In 2020, voters approved $7.1 billion in funding for Project Connect with $300 million going towards funding anti-displacement measures for vulnerable communities. To help guide the anti-displacement funding, the city partnered with residents of vulnerable communities to create the Project Connect Anti-Displacement Equity Tool.[52] This tool is to be used for "evaluating anti-displacement projects, programs, and policies" that use anti-displacement funding. [53]

Besides anti-displacement initiatives tied to Project Connect, the city has also made strides to return displaced residents. On March 8, 2018, the Austin City Council adopted a resolution that created a preference policy pilot program for providing affordable housing to displaced residents with "generational ties to the City." [54] The city is piloting the program through the Austin Community

Land Trust, which is administered by the Austin Housing Finance Corporation. Applications for city-owned properties opened in spring 2023 through the Austin Community Land Trust.[55]

With the city's initiatives to combat displacement, non-profits and the City of Austin have worked together to better understand the state of the affordable housing shortage and potential solutions. The following sections of the report provide a snapshot of affordable housing in Austin and city policies in place to incentivize development of affordable housing units.

2017 Affordable Housing Blueprint & 2021 Report Card

In 2017, the City of Austin adopted the *Austin Strategic Housing Blueprint* to guide a ten-year strategy for the development and preservation of affordable housing units. The Blueprint was intended to "align resources, ensure a unified strategic direction, and facilitate community partnerships to achieve a shared vision of housing affordability … to achieve both market rate and affordable housing goals."[56] While the U.S. Department of Housing and Urban Development (HUD) defines affordable housing as "when a household pays no more than 30% of its annual income on housing," the definition provided in the Blueprint differs slightly.[57] The City of Austin believes such definitions must include "not only housing costs, but also utilities and transportation costs."[58]

The Blueprint includes 65 different recommendations for city lawmakers to consider in order to preserve and produce affordable housing. Perhaps the most important contribution of the Blueprint concerns its assessment of future housing demand in Austin. From this assessment, 10-year goals were established to drive maintenance and development of housing across all City Council districts, including both income-restricted affordable housing and market-rate housing, to meet expected future demand. These goals include "the construction of 60,000 housing units affordable to households at 80% Median Family Income (MFI) and below, and another 75,000 units for households earning greater than 80% MFI broken into specific goals for households at different income levels."[59]

Each year, the city partners with HousingWorks Austin, a local affordable housing advocacy organization, to evaluate the city's "progress towards reaching the affordable housing goals established in the *Blueprint*."[60] In September of 2022, HousingWorks released the 2021 Blueprint Scorecard. The report finds that the city is on track or making progress towards meeting annual production and maintenance goals for households at 80% MFI or above.[61] However, the city is behind its annual goals for households earning 80% MFI or below. While the *Blueprint established the goal of* 6,000 affordable units created or preserved per year, a total of only 7,601 affordable housing units were produced for households at 80% MFI or below between 2018 and 2021.[62] Not one of the 10 City Council districts is "on pace to meet its ten-year District-specific goals for affordable."[63] Overall, the authors of the report see a "lack of progress in the production of housing affordable to low-and moderate-income households throughout Austin" though they maintain that significant progress can be made in the next ten years.[64] Because the Blueprint tracks affordable housing that is completed and operational, the significant number of units that are currently in the development pipeline will help the city to achieve its goals in the coming years. And, while the development of new affordable housing has lagged behind annual goals outlined in *The Blueprint,* efforts to preserve

existing affordable housing "have far exceeded the annual Blueprint goal of 1,000 affordable units preserved by over 50%."[65]

Homelessness in Austin

While the focus of this report is not on homelessness, one consequence of Austin's affordable housing shortage is an increase in homelessness. The City of Austin states that "access to affordable housing is critical to ending homelessness."[66] According to ECHO, a non-profit organization dedicated to ending homelessness in Austin, "The number of unhoused people has grown 7.4% in Austin/Travis County since 2019."[67] ECHO also finds that increasing housing costs and low wages are some of the "key drivers of homelessness" in Austin, as it is in other major metro areas across the U.S.[68]

At a regional summit held in 2021, local governments and community groups outlined plans for the city to create housing for "upwards of 3,000 unsheltered homeless individuals" and over 1,000 new Permanent Supportive Housing units in three years' time, which City Council expressed support for.[69] 137 units of Permanent Supportive Housing were developed in 2021, but in September of 2022, a city official said that 1,000 housing units for this purpose were "either in development or well on their way to construction."[70]

General Obligation Bonds

City of Austin voters have approved four separate General Obligation Bonds for affordable housing, with each bond total increasing in size. These bond allocations can be used to "provide funding for the creation, rehabilitation, and retention of affordable rental and ownership housing," including, but not limited to, land acquisition, home repairs, rental housing development assistance, and affordable owned housing development.[71] The City's usage of funding from these bonds is discussed in greater detail later in this report.

Cost of Housing

Our report builds on the work of the Spring 2022 Housing Policy report.[72] The task for that research team (Kennedy et al.) was to produce an estimate of the cost of developing single-family detached, duplex, townhouse, small multiplex, and mid-rise multifamily residential buildings in different ZIP-codes within the City of Austin.[73] They collected estimates of each cost area for each housing type into a pro forma model that could estimate the cost of developing each type of housing in Austin. The team identified two main areas of development cost: hard costs, including land acquisition, labor, and materials; and soft costs.

Hard Costs

The hard costs associated with new building construction are divided into three categories: land acquisition, labor, and materials. The hard costs are dominated by market forces and there is little control that the city has over them.

Land acquisition

Public acquisition of land refers to the purchase of land by public agencies.[74] Public agencies may acquire land for the fulfillment of public policies. These public policies include the use of real property for offices, land conservation, public goods development including roads, and the promotion and maintenance of other urban and non-urban amenities. At the local level, local governments acquire land to achieve various community goals. The City of Austin currently owns properties within the jurisdiction of the city and in the surrounding counties "both for specific uses by city departments, as well as public uses such as parks and recreation."[75] One community goal that is achieved on publicly owned land in Austin is the construction, redevelopment, and preservation of affordable housing.

There are several benefits that accrue to the city from owning land. In terms of affordable housing, owning a designated area of land will enable the city to initiate or sponsor a housing development project, or support an existing one. In addition to the control that land ownership gives the City, other benefits – depending on the end use – may include the exemption of certain federal level taxes and the exemption of ad valorem or property taxes levied by the City.

As opposed to other commonly purchased assets or commodities, land, particularly urban land, has specific characteristics that make its value climb unlike other assets. The value of land depends on location, size, desirability, revenue potential, among others; and in housing markets as hot as Austin's, land may increasingly become inaccessible to low- and middle-income families, shrinking their possibilities to own or rent a home. This highlights another facet regarding the importance of cities owning land for affordable housing: when the city controls the land it can influence the end price that low- and middle-income residents pay to rent or own a home.

The main ways in which the City of Austin has supported affordable housing include traditional instruments such as tax credits, namely the Low-Income Housing Tax Credit, and the issuance of bonds. But with the current landscape that includes persistent homelessness and rising prices, Austin and other cities have used alternative methods to expand affordable housing supply.

Labor

According to the latest model by the Associated Builders and Contractors (ABC), the United States needs to employ 650,000 additional workers to meet the 2022 construction demand[76]. They further project that 2023 will require an additional 590,000 employees. These numbers are across all construction trades and project types. However, with the additional construction funding coming as part of the Infrastructure and Investments Jobs Act (IIJA) and COVID-19 relief funding, many heavy civil construction projects will begin and will require a significant share of the workforce, leaving even fewer workers for housing. The chief economist at ABC said "the workforce shortage is the most acute challenge facing the construction industry despite sluggish spending growth."[77] If the labor demand is not met, costs will consequently increase, and projects will be delayed. However, in the Austin Metropolitan area, construction and extraction workers are 12% of the

regional unemployment rate in the second quarter of 2022, with over 4,000 workers looking for jobs.[78] These workers are liable to move to other regions if they cannot secure work here.

Additionally, the existing construction workforce is aging and there is a growing gap in knowledge base. The average age of retirement is 61 and currently 20% of the workforce is over the age of 55.[79] These workers represent some of the most skilled and knowledgeable workers in the industry. There is a new workforce being trained, but the emphasis is not on more skilled trades like electricians, but rather on laborers.[80] Construction jobs, whether electrician or laborer, are considered middle skill as they require more than a high school education and less than a four-year college degree. According to a Harvard Business report, historically "middle-skills jobs served as the springboard into the middle class" and contributed to America's competitiveness.[81] The city currently has workforce development strategies to train individuals for middle-skill jobs including construction. The City of Austin Construction Training Program (CTP) works to develop a workforce of qualified and ready-to-work individuals and promote economic opportunities for Austin residents. CTP has 18 partner organizations that make its "pipeline" from training to industry jobs.[82] These partnerships are the key to successfully training and employing the new workforce.

Materials: A Case Study

Like the cost of labor, the cost of materials is market driven. The city could bulk buy materials and resell them at a discounted and inflation protected rate to keep the prices artificially low. However, this might be a logistical challenge and the costs of storage too exorbitant to be feasible. A way that a system like this can work is through depots for recycled construction materials. The recycled materials already have a lower price than new goods, so their price is not artificially low. In Houston, 38% of the waste stream comes from construction materials.[83] Houston has created its Building Materials Reuse Warehouse to redirect this waste from landfills. The warehouse workers refurbish the material back into usable goods. Then, they partner with nonprofits to reuse the material. The Houston warehouse is funded by a grant from the Houston Area Galveston Council.[84] Though it is unlikely that using recycled materials would significantly decrease the cost of housing, warehouses such as this promote more sustainable building practices and can assist nonprofits in their construction needs.

Soft Costs

In the development process, soft costs refer to any cost that is not included in the cost of acquiring land or in the construction or materials costs of the project.[85] This can include professional and consulting fees, such as environmental assessments or legal fees; architectural design; permitting and regulatory fees; or carrying costs. Although soft costs can be difficult to quantify and can vary greatly depending on the development project, Kennedy et al. identified six main soft cost areas: costs for architecture and engineering services, legal costs, financing costs, insurance costs, permitting and fees, and regulatory costs. Although the impact of any singular soft cost is negligible in the scale of a

housing project, these costs in combination can impact the feasibility of a development project. Whereas the City has limited control over the other soft costs, we will focus on the fees and other regulatory costs.

Regulatory restrictions on land use, such as single-family zoning, limit the potential housing supply; this is even more pronounced in cities with inelastic markets. According to Knut Are Aastveit, Bruno Albuquerque, and André Kallåk Anundsen, inelastic housing supply means "prices should be more sensitive to changes in demand," meaning more demand leads to an increase in house prices. Based on the 2020 study by Aastveit, Albuquerque, and Anundsen, the Austin-Round Rock MSA housing supply was becoming more inelastic at that time. That study found that between 2012-2017, areas in the US that experienced an increase in inelasticity had stringent land use regulations, leading them to "expect areas with tighter geographical and regulatory restrictions to expand supply less."[86] Edward Glaeser, Joseph Gyourko, and Albert Saiz find that inelastic markets will see longer lasting housing bubbles and will have higher housing price increases than elastic markets.[87]

Stakeholder Interviews

Our team's initial objective was to conduct interviews with various Austin-based stakeholders who understood the mechanics, effects, and contexts of the soft costs we selected. While the focus of our work is housing affordability, a component of the project's scope was to understand the public impact of soft costs. Therefore, we attempted to capture the potential costs associated with revising or eliminating the soft costs in question.

Our interview guide[88] included three sets of questions, one for each profession: affordable housing developers, city agencies, and environmental advocates. For developers, we asked whether they faced any challenges to participate in affordable housing focusing on financial incentives, delays, and their perspectives on city fees and ordinances. With city agencies, we asked about the City of Austin's perspective on the mechanisms and challenges in supporting affordable housing development. For environmental advocates, we inquired about the relationship between development, city services, and environmental protection. We contacted stakeholders in each of these three groups.

Our team interviewed seven stakeholders to gather context on developer experiences working through the development process. We interviewed four private and non-profit developers, one housing advocacy group, and two environmental advocates. Three informational, informal conversations were conducted with city staff. However, these interviews did not use the interview guide and the process outlined and were excluded from the analysis. Every interview was recorded in Zoom and supplemented with meeting notes. Upon completion of the interview process, we analyzed each interview for common themes. These themes helped guide our understanding of the challenges for affordable housing development and our recommendations for changes to various soft costs to further incentivize the construction of more affordable units.

Regulatory/Permitting Process in Austin

Multiple housing developers commented that City of Austin site permits, and inspections may take roughly a year to three years to be fully approved. It is important to note that specific reasons for delays may vary by project and can be due to delays by city staff, developers, permitting consultants, state/federal regulations, and other reasons. Given the context of rising inflation and interest rates, such a lengthy period for permit approvals can significantly raise an affordable housing development's soft cost through interest and fees.

A representative from Habitat for Humanity mentioned that if development costs become too high because of lengthy permitting times, then they may choose to develop in municipalities outside of the city or in other Texas cities like Dallas, San Antonio, or Houston. Thus, an opportunity cost may exist for affordable housing developers in Austin.

Other regulatory impacts on development costs

Most participants touched on how the complexity of Austin's Land Development Code affects affordable housing development. Several developers said professional staff like engineers, architects, and LDC expediters specific to Austin are a necessary and expensive cost when working on affordable developments in the city.

Interviewees perceive the City's Development Service Department (DSD) as understaffed, which is a challenge that many local government entities across the country are facing. Many interviewees connected DSD's capacity to permitting delays in Austin. Interviewees described how the rising demand for housing development may contribute to a growing backlog. Some interviewees wondered if it would be possible for city leadership to create pay incentives for DSD employees that reduce turnover and more efficiently process permits for development.

Many interviewees also stated that city departments can operate in silos, due to numerous City of Austin responsibilities. Some participants described communications between departments in Austin as taking months and drew comparisons to other Texas cities such as San Antonio that employ an expedited cross-departmental review team for affordable projects as a potential alternative. Interviewees stated that it is important for city departments to streamline communication and become more collaborative to make affordable housing development more efficient in Austin.

Ultimately, interviewees praised the SMART Housing and Affordability Unlocked programs as helpful supports for affordable housing development.

Permitting Process

Soft costs can vary based on timeliness in the permitting and review process. Kennedy, et al investigated how development costs are affected by delays. They found that delays can lead to higher carrying costs, or the cost needed to hold or store inventory over a period of time. Their stakeholder interviews also revealed that reviewer turnover and conflict between City of Austin departments can lead to delays.[89] Specifically, a report conducted by researchers at the UT Austin Community and

Regional Planning (CRP) program estimated that in 2015, delays in the permitting process led to developers increasing base rent prices by an average of 4%.[90]

Under the Obama administration, the White House released a housing development toolkit to help cities learn about ways to increase affordable housing development. Permitting processes and delays are referred to throughout this toolkit as an important area of focus for cities looking to remove barriers and lower costs for housing development.[91]Average multifamily projects in Austin have reportedly seen three to nine months of construction delays.[92] At the 2022 Central Texas Housing Summit hosted by the Austin Board of Realtors and Greater Austin Chamber of Commerce, builders noted that while there are around 50,000 rental units under construction in Austin, around 45,000 are awaiting permits, a process that can take about 14–20 months in Austin.[93]

Austin's Land Development Code

Efforts to update the City of Austin's Land Development Code have been the subject of intense scrutiny and controversy in recent years. The Austin City Council adopted the Land Development Code (LDC) in 1984; it determines how land can be used throughout the City, including what can be built, where it can be built, and how much can (or cannot) be built.[94] There has been growing pressure on City Council Members to update the Land Development Code as it no longer reflects the growing needs of a city of nearly one million residents. In 2018, the Austin City Council passed a resolution that would eventually be called "CodeNEXT," to propose revisions to the Land Development Code to align it with the 2012 Comprehensive Plan, Imagine Austin. This plan was designed to "promote a compact and connected city"[95] and encourage the provision of "missing middle" housing. However, the community was divided in its response.

Although comprehensive planning and zoning systems are often justified as preventing incompatible uses for parcels of land located near each other if it could hinder the enjoyment of neighboring parcels, these regulations come at a cost.[96] There is widespread agreement that reforms to the City of Austin's Land Development Code can have a substantial, positive impact on the supply of affordable housing and ameliorate associated costs with building affordable housing, but the response has been splintered on what these reforms would look like. Given the current political context surrounding proposed code revisions[97] and the continued scrutiny that will increase as the housing affordability challenges continue in Austin, we have chosen to focus on three areas: single-family zoning and compatibility standards; parking minimums; and regulatory fees as viewed through the Heritage Tree Ordinance and Parkland dedication fees.

Single-Family Zoning

In Austin, single-family zoning is defined as zoning that allows only one house on a given property. It is designated as "SF-1" and escalates to "SF-6" under the city's zoning code. Single-family residence large lot (SF-1) district permits low density single-family residential use on a lot that is a minimum of 10,000 square feet.[98] Similarly the Single-family residence small lot (SF-4A) permits single-family homes on a lot that is at least 3,600 square feet. According to an analysis of City of Austin data, roughly 41% of the land zoned for residential use is restricted to single-family homes.

The other 59% is zoned for duplexes, townhomes, apartments, and other forms of multiple housing.[99]

Minimum lot size in the land development code is what determines how small a developer can subdivide a lot. Below is a summary of the development requirements for single family residences according to the land development code:

Single-family residence standard lot (SF-1)

- Single family residential use
- 10,000 square feet minimum lot size
- Most restricted single-family zoning.
- Most likely the lot is located near an environmentally sensitive area.

Single-family residence standard lot (SF-2)

- Single family use
- 5,750 square feet minimum lot size

Family Residence (SF-3)

- Single-family residential use
- 5,750 square feet minimum lot size
- Duplex residential use permitted for lots 7000 square feet
- Moderate Density
- Most common zoning in terms of housing in Austin

Single Family Residence Small Lot (SF-4A)

- Single family residential use
- 3,600 square feet minimum lot size
- Usually close to the city center and is intended to increase population density in certain areas.

Urban Family Residence (SF-5)

- Duplex, two-family, townhouse residential use
- 5,750 square feet minimum lot size

Townhouse and Condominium Residence (SF-6)

- Not subject to the spacing and location requirements for SF-5 district.

- May be applied to a use in an area with large lots that have access to streets other than minor residential streets [100]

The City of Austin has a large proportion of residentially zoned land restricted to single-family use. Consequently, there is a limited supply of housing which in turn increases the demand and cost of housing. Large minimum lot sizes usually translate into fewer homes being able to fit in an area, which would reduce supply of potential housing. The Land Development Code in general is complicated, restrictive, and difficult to understand for developers wishing to build housing within the City of Austin.[101] Housing supply has fallen well short of demand, due in part to strict and complicated regulations and overlays within the code. [102]

Accessory Dwelling Unit

An Accessory Dwelling Unit ("ADU") is a separate housing unit not attached to the primary housing unit on the same property. It is usually smaller in size and is regulated by the City of Austin Land Development Code. The current requirements in place for an ADU are below:[103]

- The minimum lot size for ADUs on a SF-3 zoned lot is 5,750 square feet.
- The maximum size for an ADU is 1,100 square feet
- Buildings must be separated by a minimum of 10 feet
- ADUs require additional parking (two parking spaces) to be added to the lot. However, if the ADU is less than a quarter mile from an activity corridor then additional parking is not required.

Compatibility Standards

Austin currently uses zoning districts and existing uses to trigger compatibility standards.[104] The purpose of compatibility standards is to protect the "character" of surrounding neighborhoods by ensuring that new construction and additions are "compatible" with these neighborhoods.[105] This translates to a set of rules that developers abide by to build multi-unit housing within the vicinity of a single-family detached home or a single-family zone.[106] Namely, height restrictions, setback rules, and any other constraints that are designed to achieve a uniform appearance among neighboring buildings. Any multifamily developments, including vertical mixed-use developments, must conform to current compatibility standards that apply to sites that are within 540 feet (or nearly 2 downtown blocks) of the property line of an urban family residence (SF-5) or more restrictive zoning district.[107]

Austin has some of the strictest compatibility standards in the country compared to peer cities.[108] For example, a building can only reach 90 feet so long as the nearest single-family home is not within 420 feet.[109] In contrast, a 90 foot building in Dallas and San Antonio can be just 50 feet from a single-family home.[110] A piece of land can be zoned for a single-family home and be vacant, but still have the same compatibility requirements. This means that even if zoning for a lot allows for a bigger building, a single-family home down the block can trigger additional compatibility issues.[111]

Parking

While we discuss Parking minimums in the following section, we mention it here insofar as it is relevant to recent compatibility standard relaxation along transit corridors. Recently, City Council struck a compromise on compatibility to lower parking requirements for developments near light rail, large, and medium corridors.[112] However, only about 13% of development zones are eligible under the compromise for parking requirement elimination.[113]

Minimum Parking

Parking minimums are written into Austin's Land Development Code and specify a minimum amount of required parking for new developments. Parking minimums add expense to development and can limit how development projects can design or use their parcel of land. The development of parking spaces has a cost, roughly between $10,000 to $40,000 per space.[114] Case studies conducted by researchers at UCLA's School of Urban Planning highlight instances developers did not build additional units, due to parking minimum requirements.[115] For example, in Denver (an often referred to peer city to Austin) parking requirements were associated with a 60% increase in development cost. By increasing the number of properties eligible for both redevelopment and reduced parking mandates, the city provides cost savings to developers to consider for additional housing development.

The City of Austin regulates parking minimums for residential developments through the Land Development Code. Condominiums, multi-family, group residential, and retirement housing must provide one parking space for the first bedroom of a dwelling unit and 0.5 parking space for each additional bedroom. Townhomes, single-family residential, duplex, group home, or family home use must provide two parking spaces for each dwelling unit.[116] The development of such parking spaces has a cost, and the money spent developing those parking spaces could go towards developing more housing.

Parking mandates, therefore, can influence housing affordability. A study published in the Housing Policy Debate journal observed that a single parking space translated to an average monthly cost of $142 for apartment renters, including those who do not own a car. The same study calculated that residents across the country spend roughly $440 million on unused parking spaces each year.[117]

Elimination or reduction of parking minimums is therefore one route the city could consider decreasing the costs of developing affordable housing. To calculate a meaningful metric, the city should estimate both how many parking spaces are developed on an annual basis as per the mandates set forth in the land development code and how many of these parking spaces go unused. Coupled with expected parking space development costs, the city could use the metrics to provide an estimate for development cost-savings but-for the parking mandates. We would then recommend the city to project an expected amount of housing units that could be built with these estimated cost-savings.

For a city experiencing heavy traffic congestion, a focus on relaxing parking space mandates would also be in line with other city priorities and commitments. The Texas A&M Transportation Institute ranked the stretch of Interstate Highway 35 (I-35) that crosses through Austin as the second most

congested roadway in Texas.[118] Other studies estimate that traffic congestion in Austin costs each driver $500 per year.[119] With more than 600,000 Austinites between the ages of 18 and 65, that cost can easily reach an annual amount of $300 million. Reducing parking minimums will not only reduce the cost of housing development, but it may also incentivize the use of public transit which can be expected to relieve traffic congestion and its associated costs.

As mentioned earlier, a focus on parking minimum reform specifically on transit corridors is in line with other city priorities such as the 2020 passage of the mass transit plan, Project Connect.[120] Furthermore, relaxing parking mandates along transit corridors aligns with the city's overarching goal to "promote a compact and connected city", as per the 2012 Imagine Austin Comprehensive Plan.[121] Lastly, such reform would also align with other downstream alignments such as Austin Energy's Emission Reduction Initiative by reducing driving-related emissions.[122] Therefore, we also recommend the city consider expanding the range of properties considered to be on transit corridors to transitively make it more affordable to develop housing in a compact and connected manner.

Regulatory Fees

Three major themes emerged from our interviews with environmental groups: the need for balance between conservation and city growth, city investment in conservation, and areas of successful partnership. Both interviews cited Austin's natural areas as one of the things that makes the city such an attractive place to live. In their interview, one conservation advocate described this phenomenon as "loving it to death"—as the City's population grows, beloved natural spaces are put under more stress and are at risk of being worn out. Additionally, as the city grows, and housing becomes more dense, outdoor space becomes important as a "backyard" of the city.

Interviewees also cited the need for city support to protect greenspace and sensitive environmental areas. Conservation groups we interviewed use different funding sources to support their work in conservation, such as parkland dedication, parkland bonds, and philanthropy. Because conservation is so expensive, parkland fees and bonds are important elements of city support. Interviewees acknowledged a need to find a balance between these areas of investment and developer interests. Interviewees also identified areas where there has been successful partnership with development and indicated that they see it as a respectful relationship overall.

The complexity and variation of regulatory fees in Austin often demand higher compliance costs and increased expenses to hire consultants to help ensure project compliance. The Terner Center for Housing Innovation at UC Berkeley found that development-related fees, assessed in places like California where the average 2015 impact fees were three times the national average, often result in costs being passed onto residents in the form of higher prices or result in higher subsidy needs for affordable housing development.[123]

Heritage Tree Ordinance

The City of Austin regulates the protection of trees and encourages greater tree canopy coverage along with housing development. Under DSD, the City Arborist manages tree review and approval

for the movement and removal of trees and code enforcement.[124] Trees with a diameter greater than 19" are protected trees and trees with a diameter greater than 24" may be heritage trees.[125] Trees with a diameter greater than 30" are heritage trees and removal must go through a public process.[126] Compliance requires developers to work with the city to develop a tree plan for their sites with additional expense and review time. For example, cases have come to City Council for additional waiver requests, due to the cost and/or complexity of designing building plans when heritage or protected trees are present.[127]

Trees provide many benefits to cities, including flood mitigation[128] and an array of mental and physical health benefits.[129] Trees also reduce the impact of heat and research shows that traditionally redlined and low-income areas with predominantly residents of color have less tree coverage and are more susceptible to the effects of increased heat.[130] With climate change and global warming on the rise, climate change mitigation is a concern for many cities. The City of Austin's tree ordinance aims to reduce the loss of tree coverage because of development through regulations, fines, and fees.

Although the costs associated with regulatory review for a removal or movement of a tree can vary widely depending on the trees themselves and the extent of removal, the City of Austin has been able to quantify this soft cost.[131] According to the DSD's 2022-2023 fee breakdown posted by DSD, heritage trees add approximately $5,000 in cost on top of standard consultation, review, and inspection fees.[132] Appeals of protected or heritage tree decisions also incur about $5,000 in fees.[133] Site plan or subdivision review ranges from adding approximately $1,000 to $3,200 in fees, depending on the number of trees.[134]

Since developers tend to pass on additional construction costs to consumers, this would likely continue to exacerbate the expensive housing market in Austin and pit environmental protection against affordable housing. For example, Seattle recently proposed updating its municipal land code to afford more protections to certain trees.[135] This proposal received intense opposition from housing development advocates that tree ordinances may be at odds with increased, dense, housing development.[136] During our interviews, several developers suggested that the City's tree ordinance can present development challenges and encouraged the city to further review its ordinances to allow the loosening of the restrictions for affordable housing development.

Parkland Dedication Fees

Development projects are required to pay several fees to the city to start building; these fees cover everything from fire and safety inspections to environmental and floodplain analysis to permitting and processing fees. The parkland dedication fee is a required fee that developers pay to the Parks and Recreation Department. This fee gained recent attention due to the fee increase and its expansion to include certain commercial properties.[137]

Parkland dedication requires new residential developments to provide parkland within a five (0.25 mile) or ten minute (0.5 mile) walk for all Austinites.[138] Specifically, the statute requires residential developers to convert a portion of residential development for public parkland or to improve access

to already existing parkland (e.g., park trails).[139] If developers are unable to dedicate land, they pay a fee instead to the parkland development fund.[140] In September 2022, the City Council raised the parkland dedication fee by 10% and applied this fee to commercial developments for the first time.

Parkland dedication fees can contribute to increasing development costs, given the dramatic increases in land acquisition costs and value.[141] Developers may pass parkland dedication costs to renters and homeowners. This contributes to the growing cost of housing and even limits access to new parkland by pushing lower-income families out of increasingly expensive neighborhoods and rendering livelihoods unaffordable. Austin's Parks and Recreation Department reasoned that proposed fee increases are needed to keep up with the City's growing population and expensive housing market.[142]

However, some elected officials and housing associations expressed concerns regarding these increases. A 2014 study in the Landscape and Urban Planning research journal observed that parkland fees raise development costs and the new greenspace attracts retail businesses and a wealthier subgroup of residents, which the study connects to gentrification and gentrification's impact on increasing housing costs.[143] The 2022 ParkScore Index, developed by the nonprofit organization Trust for Public Land, uses fourteen measures to gauge the level of parkland access, investments, amenities, acreage, and equity in cities. Austin received forty-three out of one hundred possible points in the "Equity" domain, which measures the distribution of parkland between neighborhoods by race and income. According to the ParkScore data, Austin residents in neighborhoods of color are 28% less likely to have access to park space than those in white neighborhoods, while residents in low-income neighborhoods are 59% less likely to have access to park space than high-income neighborhoods.

As our interviews highlighted, parkland and green space is critical to promote health and wellbeing, especially in a growing urban landscape. In September of 2022, the Austin City Council voted to extend the parkland dedication fees to commercial developments for the first time since the city established parkland fees in 1985.[144] This extension will generate previously untapped revenue for parkland dedication while creating an opportunity to provide relief on the residential side. While the City Council has yet to make a decision that would reduce or pause the parkland fees applied to residential development, the decision to bring commercial projects into the mix may encourage developers and advocacy organizations to push for a pause in residential fees.

Research Limitations

Selection Bias

The data we have about permitting costs from the last PRP is biased in that we only have data for *completed* permits/developments. Therefore, the costs and data we have remains opaque given the lack of data around failed or uncompleted projects.

Time and Resources

The first volume of this report identified more than 40 soft costs. This team selected three to explore, due to time and capacity constraints.

Interview Participants

Our team reached out to over thirty stakeholders for interviews, but we only were able to formally interview seven stakeholders using our interview guide. Additionally, city staff and planning commission members were not interviewed, which presents a large gap in the thematic analysis we conducted. Additional engagement among all stakeholder categories is needed to bolster the analysis and add data to support any future recommendations.

Affordable Housing Policies in Austin

Permitting Process Improvements

The Development Services Department of the City of Austin has taken considerable steps toward improving the permitting process, including new services, expanding existing programs, and instituting a shift in priorities for staff. In support of Austin's critical affordable housing and permanent supportive housing needs, the Development Services Department created an Affordable Housing Office. The Affordable Housing team works closely with community partners to ensure these developments move quickly and smoothly through the interdepartmental development process. During FY22, the program was expanded to include additional resources and enhanced services to intensify the department's role in realizing the City's housing goals. In a very short period, the team assisted more than 100 affordable and permanent supportive housing developments through the plan review and permitting process, which will ultimately result in hundreds of new affordable units in the City of Austin.

Similarly, the Development Services Department expanded and enhanced the Expedited Building Plan Review program. This premium service accelerates the building plan review and permit process by holding a single review session with a full team of experienced plan reviewers and the applicant's design team. In FY22, the program added a third team of reviewers, which expanded appointment capacity and enabled customers to meet with staff more quickly for combined multidisciplinary reviews. The Expedited team processed nearly 1,000 applications in FY 2022 and significantly reduced the wait time for meetings.

Additionally, Plan Review Intake teams and the Service Center implemented a new appointment structure and updated hours, reserving Wednesdays to process submitted applications and permit requests. This ensures staff can address incoming and pending inquiries effectively. The Residential and Commercial Plan Review teams also continued the stakeholder initiated "Update Fridays," which began as a pilot the previous year. Friday work hours are now reserved to review updated applications and finish reviews that are running beyond target timelines. These adjustments enable targeted reviews and result in faster application processing.

Finally, the Development Services Department has created a one-stop shop for all land development transactions. Sunnyvale, California, a municipality within the San Jose metropolitan area, is a key pioneer in the implementation of a "one-stop shop" for the housing development process. Opening its One-Stop Permit Center in 1985, the Center provides a plethora of regulatory approval services for housing development, including permitting, licensing, and plan checks. Since its debut, the One-Stop Permit Center is now able to issue over 90% of all building permits at the counter due to its coordinated and streamlined nature.[145] The Center is staffed by members of the Community Development, Public Works, and Public Safety Departments.

Affordable Housing Development Incentives

The City of Austin offers a range of development incentives for new developments that include affordable housing units for low-or-moderate income households. These incentives generally encompass "fee waivers, density bonuses, tax incentives, and development agreements."[146] Thirteen of the fourteen development incentive policies in place now are considered density bonuses. These allow developers "to build more units than are allowed by a site's base zoning" if a certain number of units are income-restricted and meet affordability requirements for a set number of years (dependent upon the particular bonus incentive).[147] While many of these incentives are offered in specific geographic regions of the city, this report highlights two incentives - Affordability Unlocked and SMART Housing – which are considered citywide development initiatives. It also highlights the city's use of general obligation bonds to fund affordable housing development and recent changes to the city's processes for VMU Zoning and Parkland Dedication Fees.

Affordability Unlocked

Affordability Unlocked, approved in 2019, is a citywide density bonus program available to developers who earmark "half of a development's total units as affordable," in exchange for bonuses including "height and density increases, parking and compatibility waivers, and reductions in minimum lot sizes."[148] At the time of adoption, city officials characterized this program as a leveraging of the 2018 affordable housing bond approved by Austin voters.[149]

The program contains two different tiers. To access the entry-level tier, half of all rental units must be considered affordable for households up to 60% MFI or below and must remain affordable for at least 40 years. For ownership units, half of all units sold must be considered affordable for households up to 80% MFI or below and remain affordable for at least 99 years. In addition to income restrictions, there are also requirements related to the number of bedrooms available in each unit and safeguarding of tenants' rights. Should these standards be met, developers gain access to waivers for compatibility, design, site area, parking, and building height, and other standard requirements. The program's second tier has more stringent affordability requirements, but it offers even greater height and dwelling unit incentives should developers meet them.[150] Since the program is relatively new, it is unclear what the impact of this development incentive policy has been on the production of affordable housing units since its adoption. However, some affordable housing developers, particularly nonprofit ones, expressed enthusiasm that the program would ease restrictions and impediments in place for such development.[151]

SMART Housing

SMART Housing (Safe, Mixed-Income, Accessible, Reasonably priced, and Transit-oriented housing) is a citywide development incentive that was adopted in 2000. It allocates "full or partial fee waivers for up to 1,500 service units annually in developments in which a portion of units are 'reasonably priced' and all units meet S.M.A.R.T. Housing™ standards."[152] Standards include proximity to public transportation and adherence to City of Austin Green Building standards.[153] Service units are counted differently for single-family units (one service unit) and multi-family units (fraction of a service unit), which allows the city to incentivize the building of more than 1,500 actual housing units annually.[154] Adherence to these requirements grants developers waivers related to permitting, inspection, and capital recovery.[155] These fee waivers are awarded on a sliding scale, dependent upon the percentage of units that are considered reasonably priced in a development. At the lower end of the scale, if 10% of new development units are reasonably priced and meet S.M.A.R.T. Housing™ standards, developers receive 25% of available fee waivers. At the higher end, if 40% of these units are offered, developers receive 100% of available fee waivers.[156] If federal assistance is not utilized in the development of units, single-family homes need only remain affordable for one year, while rental units must remain so for five years.[157] Additionally, SMART housing developments are typically put through a faster review process than conventional housing developments are, with some city officials estimating savings of 40% on permitting time.[158] [159]

More than 10,000 SMART housing units were created between 2000 and 2007.[160] However, in 2013, city housing officials acknowledged that most SMART housing developments were city-funded investments.[161] As of 2013, for-profit development of multi-family units had been extremely rare, which calls into question the desirability of the incentives offered through this policy and the impact of it as a tool for private development.[162]

VMU Zoning

City of Austin defines vertical mixed use (VMU) buildings as those containing "a mix of residential and commercial uses."[163] Generally, commercial units are located on the ground level of such buildings, while residential units are housed on the floors above. City of Austin has created a VMU overlay district, which allows developers to build VMU buildings within "most commercially zoned and used properties along Core Transit Corridors and Future Core Transit Corridors."[164] Various site development standards have been established for VMU development. Examples of these standards include maximum allowed building height and parking space requirements. City of Austin incentivizes developers with the opportunity for relaxed site development standards if a certain percentage of housing units created meet affordability standards. This development incentive has been in place since 2010 and, as of April 2022, the city estimates it has resulted in the creation of 657 affordable housing units, with another 549 under construction.[165]

In June of 2022, City of Austin approved changes, which split VMU zoning into two tiers. The first tier, VM1, requires that "10% of rental units must be affordable to those making 60% of the area median family income," in exchange for relaxed development standards.[166] The second tier, VM2, allows developers to build 30 feet higher than otherwise allowed if "either 12% of units at 60% MFI or 10% of units at 50% MFI" are set aside for affordable housing.[167]

Compatibility on Corridors

In June 2022, the City Council adopted a resolution to, among others, modify compatibility standards for development projects in specific corridors designated as Larger, Medium, or Light Rail, subject to certain criteria.[168] In keeping with the spirit of having a more connected city, projects along light rail lines have their heights limited at 100 feet from a triggering property.[169] On large corridors, developers would be allowed 65 feet at 100 feet from a triggering property, and 90 feet at 200 feet; on medium corridors, developers would be allowed 150 feet at 100 feet from a triggering property, and 250 feet at 200 feet.[170] The resolution also grants residential or mixed-use properties a reduction in parking minimums and for affordable housing projects a reduction in compatibility standards.[171] For example, when located at 200 feet away from a piece of land zoned for single-family homes a building can reach 55 feet in height, an increase of five feet over the previous maximum.[172]

The changes, such as ending compatibility regulations at 300 feet from the nearest triggering property, relaxing what can be allowed in the 25 feet setback, and basing the compatibility trigger on zoning classification instead of existing land use,[173] are meaningful steps in relaxing standards to encourage more affordable housing. However, as the Housing and Planning Department aptly pointed out in a memo to then-Mayor Steve Adler and City Council, the slight changes in the height restrictions may be too incremental to have any real impact on housing affordability and may cause more administrative burdens in the long run.[174] Given that the average ceiling height of a residential building story is between 9 to 10 feet, the difference that an additional five feet brings to a development for affordable housing units would likely be negligible.[175]

Furthermore, the rigid application of areas that would fall under the City Council's resolution limits the potential impact that it could have on developments. According to the Housing and Planning staff's responses, only a subset of corridor properties (14%) would have compatibility completely removed, barring participating in the density bonus program.[176] Hence, out of the nearly 19,000 properties in Austin, only 2,830 of them would have some kind of reduction on compatibility standards under the city council resolution.[177] Meanwhile, an estimated 78% of properties across the City of Austin would see little to no relief in compatibility restrictions.[178] Although the aim of the resolution is to encourage housing development in current or planned transit-oriented areas, it is clear that focusing on these areas in the long term would not provide a viable solution to the ongoing housing affordability challenges and would not address the much-needed "missing middle" housing gap.

Parkland Dedication Fees

City Council voted in September of 2022, after considerable debate, to increase parkland dedication fees by 10% for FY 2022-2023. City officials have used this fee system since 1985 "to collect either fees or land from residential developers to be used on green space expansions, such as for neighborhood trails, pocket parks, and other recreational improvements."[179] The exact fee percentage and any exemptions are reviewed on an annual basis. City Council voted to charge commercial developers (primarily office and retail space development) parkland fees for the first

time since the inception of this system.[180] As has been the case in previous years, the council also chose to exempt affordable housing units from these fees, which serves as another incentive for developers to include such units in their projects.[181]

Shared Equity Models

Shared equity housing is an alternative model of homeownership. Under this model, a third party provides a subsidy to a low- to moderate-income homebuyer so that they can purchase a home at lower than market rate. In exchange, the homebuyer agrees to share the appreciation of the value of the home with the third party upon resale. The third party then offers another subsidy to a new low-to-moderate homebuyer, keeping the property below market rate and ensuring long-term affordability. This model allows the buyer to build equity, purchase a home, and live in a neighborhood they would not otherwise have been able to afford while keeping the home affordable for the next low- to moderate-income homebuyer.[182] Shared equity includes a variety of models aimed at creating long-term affordable homeownership, including Community Land Trusts.[183] Shared equity models mostly affect the demand side of affordable housing by keeping costs sustainably low for homeowners, but can also affect supply-side development costs, particularly through Community Land Trusts. Shared equity can also potentially be used as an incentive to encourage participation in affordable programs.

Texas municipalities use shared equity models as a creative way to help promote affordable housing in their communities. The City of Austin uses a shared equity model to provide affordable homeownership opportunities through a Down Payment Assistance (DPA) program. This program assists first-time home buyers with a deferred 0% loan with a 30-year term. The homebuyer pays back the DPA loan, plus a percentage of the equity, and agrees to allow the Austin Housing Finance Corporation a chance to purchase the home at market rate.[184] Travis County uses shared equity models to provide gap financing to eligible-first time homebuyers in unincorporated Travis County. This financing covers the difference between the mortgage loan amount and the home purchase price, does not require monthly payments, and is repaid when the homeowner sells. When the home is sold, the buyer owes the original amount borrowed and a percentage of the appreciated home value. The program gets the option to purchase and right of first refusal to keep the home sustainably affordable.[185]

Another shared equity strategy in use in the City of Austin is through development agreements on public land. Mueller, a recently developed neighborhood in Austin, was developed on city-owned land which allowed the city to negotiate specific affordability requirements for homes within the community. This led to the creation of the Mueller Affordable Homes Program, which is a shared equity model to support affordable homeownership.[186] The Mueller Foundation, the nonprofit created by the developer to help administer the shared equity program, enters into an affordability agreement with a homebuyer. The home is recognized by the county tax appraisal district at less than market value, and then appraised at an "adjusted value" based on that original affordable sales price plus 2% of that affordable price for each year the homebuyer lives in the home. This protects the homebuyer from large increases in property tax burden as the home's value appreciates. The

program then uses a Fixed-Rate Appreciation model where the homebuyer receives 2% simple fixed appreciation per year of the affordable purchase price. This allows eligible homebuyers to purchase a home in a lower-poverty area and potentially receive a return on their investment. The homebuyer owns the home and the land, and a covenant is filed to document the agreement. The Mueller Foundation has the right to purchase the home at resale, which keeps the home in the affordable program so that it can be kept sustainably affordable.[187]

Because of a variety of state restrictions on affordable housing, shared equity homeownership has not been widely implemented in Texas. Although there have been advances in enabling legislation, existing legislation does "little to incentivize affordable homeownership outside the confines of [Community Housing Development Organizations] or municipally-sponsored development."[188] Therefore, it largely falls to the City of Austin to incentivize shared equity housing models and ensure sustainability.

Community Land Trust

Community Land Trust (CLT) refers to an alternative form of homeownership that has contributed to combatting housing crises in the US and elsewhere, particularly among low- and middle-income individuals and families.[189] Simply put, a CLT is a trust fund operated by a nonprofit organization who owns land. This nonprofit organization also manages the sale of housing stock or projects that exist over the ground it owns. When a home sale takes place, the non-profit organization remains property landowner, whereas the new owners become owners of the existing or future housing stock. At the time of transaction, the land is leased through a ground lease to the new owners for a fee and for a renewable 99-year period[190]. To maintain long-term affordability, the parties agree to a fixed home value appreciation of about 1.5% to 2% annually and other terms such as resale restrictions.[191] Similar terms exist to protect the affordability of rental units.

For reasons summarized in the paragraph below, the CLT-operating organization is usually exempt from paying ad valorem or property taxes to the City of Austin. Homebuyers generally cover property taxes for both the CLT home that they own and the ground that they lease. The fixed home value appreciation helps maintain affordability, but continual efforts have been made to further reflect income and resale restrictions in assessments against property of these homes to further promote affordability over time.[192]

The City of Austin has the authority to create or designate a CLT-operating organization. To be considered for designation, the organization must be a 501(a)(3) federal income tax exempt non-profit corporation that is created to promote and preserve affordable housing in the city[193]. Following proper notification to the Travis Central Appraisal District, the City of Austin can then exempt the organization from ad valorem or property taxes[194]. The City's own CLT initiatives and projects are managed by the AHFC.

Housing Financing

Housing projects generally require a combination of equity and debt financing. There is a considerable amount of negotiation and preparation in the processes of obtaining financing in the form of equity or debt. The following is an overview of the funding sources and mechanisms that are available to the City of Austin, as well as to developers, investors and sponsors interested in the goal of increasing affordable housing in Austin.

The Austin Housing Finance Corporation

The Texas Local Government Code describes the general provisions for municipalities to set up their housing financing corporations.[195] The City of Austin created the Austin Housing Finance Corporation (AHFC) in the late 1970s to comply with the purpose of the chapter which is to provide a means to finance the cost of residential ownership development that will provide decent, safe, and sanitary housing at affordable prices. The Corporation's mission is to generate and implement strategic housing solutions for the benefit of low- and middle-income residents of the City.[196]

The AHFC is a corporation of public instrumentality under the decision-making power of City Council. It is comprised of the Austin City Council members and the Austin mayor, and it is the entity that manages the financing aspects of the City's affordable housing projects and initiatives. AHFC administers the city's General Obligation Bonds for affordable housing, working with public and private partners to construct and preserve affordable housing. In addition, AHFC deployed the $100 million land acquisition funding that was part of the 2018 GO Bond package.

Low-Income Housing Tax Credit

The Low-Income Housing tax credit (LIHTC) has been a highly successful tool for the development of affordable housing in the United States. LIHTC is a form of tax equity financing wherein a tax credit generated by a qualified project—in this case an affordable housing project—is given to an investor in exchange for capital financing for the project. Under LIHTC, developers can receive 10-year federal tax credits in exchange for constructing eligible affordable housing projects. Developers then seek out investors who are willing to contribute equity investment in exchange for the tax credits, which will reduce the investor's federal tax liability.[197] This provides financing for the affordable housing project and incentivizes private enterprise to invest in community needs in a way that traditional government-owned housing at the time could not.

LIHTC was created by the Tax Reform Act of 1986 and made permanent in 1993. Each state receives an annual allocation of tax credits based on population. Then, state or local housing finance agencies award the credit to developers through a competitive process.[198] There are two types of housing tax credits: 9% and 4%.[199] The amount of 9% credits that the state housing finance agency can award is dependent on its federal per capita allocation of credits, and these are awarded to affordable development projects on a competitive basis. The 4% credits are dependent on the state's

issuance of private activity tax-exempt bonds; projects receive a bond allocation and then apply for the 4% credits through the state housing finance agency. Development projects must meet federal requirements for affordability as well as the state's Qualified Allocation Plan (QAP). The QAP outlines the state's set-asides, threshold requirements for eligibility, and preference categories for scoring and awarding credits to development projects.[200]

The Texas Department of Housing and Community Affairs (TDHCA) is responsible for evaluating applications, awarding credits, and program oversight. Texas's QAP uses a point-based competitive system to assess applications across preference categories. The "top ten" preference categories are set by the Texas Legislature, and include things such as financial feasibility, local government support, income level of tenants, quality of units, rent levels, cost of development, tenant services, declared disaster area, quantifiable community participation, and state representative support for the project. Texas's QAP also includes other procedural requirements such as an allocation split between projects in urban and rural areas, eligibility thresholds such as architectural design or site control, and proximity rules for where eligible projects can be located.[201]

Although administration of LIHTC primarily happens at the state level, local municipalities play a critical role in helping projects score points in preference categories or overcome certain eligibility restrictions. There are five areas that the City of Austin can lend its support to help development projects with their LIHTC applications. First, the city can offer local government support for a project through a Resolution of Support or a Resolution of No Objection to a project. A Resolution of Support gives a project 17 points in the local government support preference category, while a Resolution of No Objection gives 14 points.[202] Because LIHTC is highly competitive, the difference of a couple points between projects can be the difference between winning the tax credit or not.[203] This makes offering a resolution of support a key tool for city officials who want to help development projects be competitive in the application process.

A Resolution of Support also provides some leverage for the city to embed local priorities in the LIHTC process. Currently, projects must meet one of five City requirements to receive a Resolution of Support: the site must be owned by the Austin Housing Finance Corporation, the City of Austin, or an affiliate of either; the development must be located in a high-opportunity area; located in a gentrification area; located 0.5 miles of an Imagine Austin center or corridor, or mobility bond corridor; or have no less than 25% of the units dedicated to the Continuum of Care.[204]

There are two other ways the city can help developers obtain preference area points.[205] First, development projects can receive one point in their application through the commitment of funding by local political subdivisions. In Austin, funding commitments are in the form of waived fees through participation in the SMART Housing program. Developers go through the SMART Housing application process separately. Second, the city can write a letter to TDHCA documenting measurable improvements in a designated revitalization area, which can give up to 7 points in the Concerted Revitalization Plan (CRP) category if TCHDA determines the area meets the criteria for a CRP.

Finally, the city has the power to grant approval to waive certain statutory eligibility restrictions. Under the Twice the State Average Per Capita rule, housing tax credits cannot be awarded to a development that is located in an area that has more than twice the state average of Housing Tax Credit units per capita—which Austin does—unless the local municipality grants approval for the project.[206] The One Mile Three Year Rule does not allow developments to receive a housing tax credit if they are located within a mile or less from another development serving the same population that was awarded a credit in the last three years without local approval.[207]

These proximity restrictions and other location-based provisions are aimed at keeping affordable housing from concentrating in segregated, high-poverty areas. Recent discussion at the state level has been around whether to loosen some of these de-concentration policies in the Qualified Allocation Plan to ease costs for developers.[208] Although some proximity restrictions can be waived by local governments, other rules such as the Two-Mile Same Year Rule and the one award per census tract limitation cannot. The Two Mile Same Year Rule does not allow two developments within two miles of each other to both receive an award in the same year, and the one award per census tract per year limitation does not allow two developments to be awarded in the same year and census tract.[209] In recent TDHCA roundtable discussions on changes to the QAP, developers argued that eliminating these rules would give them more flexibility in where they could place developments, while advocates argued that there needs to be some guardrails against segregating affordable housing in one area or census tract. Advocates also argued that if proximity restrictions were to be loosened, multiple approved projects in one year should only be allowed in high-opportunity areas.[210]

Further, the QAP also provides preference points to incentivize de-concentration. Developments can receive points if they are located in a census tract that has not had another development awarded in the past 15 years or more. Developers argue that this rule drives up the cost of land as developers compete for these additional preference points.[211]

Private Activity Bonds

The federal government, under the Tax Act of 1986, limits the amount of tax-exempt financing of private activity funding allowable. The Texas Bond Review Board (TBRB) monitors the amount of demand and use of PABs each year and distributes the limited amount of PABs through an annual lottery process. Developers who want to use PABs must identify a bond issuer, such as Austin Housing Finance Corporation, who will then submit the application for Private Activity Bonds with the TBRB before the October deadline. The Bond Review Board collects the applications for bonds and holds a lottery in November to determine the order in which PABs will be awarded. As the Private Activity Bond program is over-subscribed, a high number in the lottery denotes a low probability for award of PABs.

General Obligation Bonds

Austin voters have approved the issuance of general obligation (GO) affordable housing bonds four times, in 2006, 2013, 2018, and 2022.

The first affordable housing bond approved by voters in 2006 was for $55 million, which paid for almost 2,600 affordable rental and homeownership units. The city split the use of the funds into three categories: housing for persons with low-wage jobs, persons with disabilities, or persons who might otherwise be homeless (40%); first time homebuyer and home repair programs (25%); and low-income seniors, persons with mobility impairments, children who were abused or neglected, and persons with mental illness (35%).

The 2013 affordable housing bond was approved by Austin voters for $65 million. Funds from this bond went towards the development of affordable housing for people experiencing homelessness, and rental and ownership housing for low-income families, as well as home repairs for low- and moderate-income homeowners.

In 2018, Austin voters approved an unprecedented $250 million GO Bond for affordable housing. City Council created criteria for using the money: land acquisition, rental assistance programs, homeownership programs, and home repair programs.[212] In terms of the homeownership program, the city planned to produce about 3,700 new rental units but now expects to end up with about 2,500. As for land acquisition, the city has purchased 13 tracts totaling 60 acres; three hotels for permanent supportive housing; and it has enlarged its CLT portfolio aiding in the purchase of 21 homes from the Housing Authority of the City of Austin. In terms of home repair, there were also notably positive outcomes.

In November 2022, voters approved the issuance of more general obligation affordable housing bonds for another unprecedented amount, $350 million. Mayor Adler has declared that they learned lessons with the previous bond and that, on this occasion, instead of dividing the funds in certain areas, they will create one large fund to advance affordable housing priorities given that it is not always easy to predict where opportunity might arise in the next two or three years.

Case Studies

The Legal Landscape in Texas

Before reviewing initiatives from other jurisdictions, it is important to note the specific legal limitations the State of Texas has placed on local governments to address housing affordability. State laws limit what steps the city can take to reduce housing costs. This section outlines The State legal statutes that constrain municipal regulation on housing developments and other structures.[213]

Linkage Fees Prohibited (2017)

Tex. Loc. Gov't Code § 250.008, enacted in 2017, prohibits cities from being able to charge any fee on new residential construction for the purposes of offsetting the cost of rent of any residential unit in the building.[214] Although this fee was never utilized by cities in Texas, other cities in the United States had started to use these fees. Cities and proponents of affordable housing decried this bill as removing a "tool in the toolbox" to offset the growing issue of affordable housing.[215]

Inclusionary Zoning Prohibited (2005)

Tex. Loc. Gov't Code § 214.905 imposes constraints on municipal regulation of housing and other structures. Enacted in 2005, this section prohibits cities from adopting requirements that established a maximum sales price for a privately produced housing unit or a residential building lot.[216] This practice, called inclusionary zoning, was being considered as a partial solution to increase affordable housing. The law did not prohibit a city's ability to incentivize the production of affordable housing units through voluntary programs.

Building Permit & Inspection Fees May Not Be Based on the Value of Residence (2019)

HB 852 prohibited cities from being able to consider the property value of a residence in relation to how much they charged for a building permit or inspection fee for the construction or improvement of a residence.[217] Furthermore, this bill prohibited cities from requiring the disclosure of information related to the value or cost in constructing or improving a residence as a condition of obtaining a permit or inspection.[218]

Landlords Protected from Having to Accept Section 8 Housing Vouchers (2015)

In 2014, the Austin City Council unanimously amended their city's Housing Discrimination Ordinance by adding "Source of Income" as a protected class, including those who receive housing assistance from the federal government.[219] In response, the Texas Legislature passed a law stripping local governments of the ability to establish and enforce ordinances that would protect Section 8 housing choice voucher-holders.[220] However, the City of Austin can still create or implement an "incentive, contract commitment, density bonus" or other voluntary incentives for housing voucher acceptances.[221]

Rent Control

Texas does not have a law setting a limit to the amount of rent that can be charged by a landlord. Cities are prohibited from imposing rent control absent certain declared disaster events that have triggered a housing emergency, or if the Governor of Texas approves a proposed ordinance.[222]

Texas Local Governments Ability to Raise Revenue Diminished (2019)

HB 2 prohibited local governments from being able to raise revenues by reducing the "rollback tax rate," the rate at which a local taxing authority could raise revenue before citizens could petition for an election to "roll back" the tax rate from 8% per year to 2.5%. It also required the rollback election be triggered automatically rather than through petition. The passage of this bill meant cities and other taxing districts would have less ability to raise revenue and have enough resources to fund local government operations, programs, and initiatives.

Regulatory Costs

Municipalities across the United States are experiencing rapid cost of living increases, specifically regarding the price of rental housing. This section expands on practices these municipalities have employed to create and preserve affordable housing units in their respective regions. These initiatives include changes to permitting processes, rezoning, employing tax incentives for development, and more.

Permitting

While there are many areas of the development process that are out of the control of the government, permitting fits squarely under the purview of a city. Many cities and states have employed creative solutions to streamline their permitting processes.

State of Florida Law on Permitting Delays

Similar to Texas, Florida has been experiencing a boom in residential home demand. To meet this need, it reformed its permitting process through recently enacted legislation. The new law seeks to eliminate excessive permitting delays and increase the housing supply to lower overall housing costs.[223] To accomplish this, cities in Florida that take longer than 30 business days to process a permit application risk losing access to the application fee from that development project. If they fail to meet the deadline, they forfeit 10% of the application fee for every day of delay. If corrections are requested by the local government, they have 10 business days to respond once the correction has been submitted by the developer. Failure to meet this deadline leads to an immediate 20% refund of the application fee and an additional 10% for every following day of delay, up to five days. In addition to the new enforcement of permitting deadlines, localities must also post their permit process publicly, as well as permit status updates.[224] According to a study that compared the four months before and after the law was enacted in October 2021, Florida saw a 30% increase in permitting across the state after the law was implemented.[225]

Expedited Review

Cities and states have taken steps to improve communication between permitting agencies and developers. While Austin provides expedited building plan review for an additional fee, other jurisdictions have pursued this improvement through a more broad-based approach. Below is a selection of policies that have shown significant impact on the plan review and permitting process.

In 2001, to lower the cost of housing development, Columbus, Ohio's Building Services Department entered a Memorandum of Understanding (MOU) with the local building industry.[226] The MOU included monthly meetings with city officials and industry representatives to discuss policy changes and improvements. In addition, the city created an administrative position to serve as the single point of contact for permitting concerns. The MOU also established a formal timeline for the permitting and building process. A report from the National Association of Home Builders cited success in creating productive, positive relationships between city offices and industry professionals that were previously "adversarial."[227]

Similarly, Massachusetts has a state permitting ombudsman to assist developers in the 43E Expedited State Permitting Program. The ombudsman has been supporting housing development since 2012. The ombudsman facilitates discussions between agencies and developers, serves as a point of contact for developers, and analyzes the impact of state regulations on development.[228]

Cities have also taken steps to increase coordination among different permitting agencies. Lincoln, MA, and Hingham, MA, both have regularly scheduled meetings between all agencies involved in permitting, which is meant to improve efficiency and increase coordination in the permitting process.[229] Newton, MA increased coordination between permitting agencies by collocating permit-related staff from different departments on the same floor of a shared building and implementing a staff-sharing system. Permitting departments also share administrative staffers, which is more cost-effective and efficient and increases interagency coordination.[230]

In 2012, Montgomery County, MD, overhauled its land development review and approval process to reduce its inefficiencies and high costs. At the time, it had a complicated permitting and planning process, making the development process in the county slower and more expensive. Montgomery implemented several new policies meant to promote development. It started using simultaneous review at different agencies instead of a sequential review, increased coordination between agencies, revised the zoning code so developers do not need to apply for special exceptions as much, created a timeline for reviewing plans, requiring agencies to report statistics on permitting process, and made payments due at time of permit issuance rather than application. Collectively, these policies have significantly reduced review time, from 3 years to 18 months.[231]

Some cities practice expedited review based on pre-approval. This means that architects and engineers can take a course on city laws and codes and can self-certify that their plans meet city requirements. Surprise, Arizona, has a pre-approval system that eliminates the need for plan review and thus permits can be issued in as quickly as five business days. Similarly, in Phoenix, Arizona,

architects and engineers who meet certain professional qualifications in addition to taking specified courses through the Planning and Development Department are able to bypass plan review and get permits in three to five calendar days.[232]

Prioritization of Affordable Housing

As housing affordability has become a priority across the county, several jurisdictions have pursued initiatives that prioritize affordable housing through the review and permitting process. Austin has created an Affordable Housing Office to guide and manage affordable housing developments throughout the process. New York streamlined permitting process for inclusionary zoning projects. The city used to have a long design and architectural review process. The city now relies on an architect's certification combined with random audits to ensure compliance similar to the expedited review that other cities have adopted as referenced above.[233]

San Diego currently employs an affordable housing expedited program. The purpose of an expedited processing program is to move projects that contain affordable housing to the front of the line in zoning, planning, and permit processing.[234] San Diego's program offers priority processing to housing developments that contain at least 10% affordable units. This fast-track processing includes benefits such as shorter staff review times and priority on hearing dockets. In one of the country's most competitive housing markets, San Diego's reasoning behind its implementation is that faster processing will reduce financing costs and allow developers to bring housing developments to the market faster. The program has paid off so far as participating projects in the city are generally processed in half the time of a typical project.[235]

A Complete Overhaul of the System

In 2007, Leesburg, Virginia's land development process was suffering from being overly complicated, lengthy, and unpredictable. As is often the case, the primary suggestion was for town staff to simply get the permitting done faster. Research into the problem, however, discovered that the true dysfunction was the fact that each building project had to submit multiple applications throughout the process - an average of five applications per project. To achieve its goals, Leesburg completely reorganized its entire land development system. It created a new department for plan review, implemented a new centralized database system, and standardized the initial application process through a new Central Plan Intake unit within the new plan review department. With this new system, Leesburg was able to decrease the average number of applications needed from 5 to 2.8 - effectively cutting the process time in half.[236]

Permit Consolidated Hearings

Cities and states have also taken steps to allow consolidated public hearings for affordable housing development to reduce the total permit approval process time. For example, Maryland allows joint and consolidated hearings for projects that require development permits from state agencies and local governments.

Land Code

Land codes govern the development and use of specific parcels of land throughout a municipality. These rules have been shown to have a direct relationship with housing costs. Cities around the country have made numerous reforms to land codes and zoning, using strategies such as lowering minimum parking requirements, abolishing single family zoning, or strategies related to minimum lot size, density corridors near public transit, and the creation of mixed-use zoning districts. The examples below expand on some successful strategies that have been implemented across the United States.

Parking minimums

In 2016, the D.C. Zoning Commission made sweeping reforms to the City's zoning code after several years of proceedings. It decreased the parking minimums around the city and largely eliminated them downtown.[237] In 2017, Buffalo overhauled its zoning code for the first time in over 60 years. It removed minimum parking requirements for both commercial and residential buildings.[238] After rezoning, researchers found that 47% of major developments included fewer parking spaces than previously required. This includes 53% of mixed-use developments. This may indicate that the city's previous parking requirements were excessive.[239]

In 2017, Hartford, CT, followed suit and eliminated minimum parking requirements for new construction.[240] In 2021, Boston eliminated off-street parking minimums for affordable housing developments where at least 60% of the units are income-restricted at 100% of the median family income. This amendment allows individual developers to determine the amount of off-street parking necessary for the site based on the needs of the project's residents.[241] In May of 2021, Minneapolis fully eliminated parking minimums for new developments.[242] Its sister city St. Paul followed suit in September of the same year.[243] While the policy's passage is likely too recent for peer-reviewed literature on its effectiveness, one study found that developers in Minneapolis spend $100 million per year on parking. That same investment could finance the construction of 636 new units at the city's average rental unit size.[244]

Rezoning

In December of 2018, the Minneapolis city council passed its comprehensive Minneapolis 2040 Plan, which includes many policies aimed at meeting various housing, climate, and racial justice goals.[245] Among the most contested was the complete elimination of single-family zoning in the city. The rationale for this policy was twofold: to allow for the development of denser housing to reduce housing costs, and to rectify past city housing policies rooted in racial discrimination, such as redlining and racial covenants. The plan went into effect on January 1, 2020.[246]

Current evidence on the effectiveness of the policy at reducing housing costs is mixed. The Minneapolis Federal Reserve Bank is tracking housing-related outcomes from the 2040 plan. Using data from similar-sized cities around the country, the Fed estimates how housing in Minneapolis

would have developed without the 2040 Plan. There is currently not a statistically significant difference in the 2040 Plan outcomes and where Minneapolis may have been without it.[247] Other metrics show that the median rent price in Minneapolis has fallen since the passage of the 2040 Plan. Data from HousingLink Minneapolis shows that median rents for one- and two-bedroom apartments in Minneapolis have fallen to pre-pandemic levels in nominal dollars, even as inflation has risen sharply.[248]

It's important to consider the context of the policy's passage and implementation, just two months before the Covid-19 pandemic shut-downs and subsequent hits to construction markets and supply chains. Additionally, Minneapolis experienced a month of serious civil unrest after the murder of George Floyd from which many parts of the city have not fully recovered.

Development Incentive Programs

Tax Exemption/Abatement

Tax exemption is one strategy cities have adopted to try to spur housing development, with mixed results. Washington, DC offers a tax abatement to developers who build housing with 10% of units reserved for low-income households and an additional 10% for families earning up to 60% of MFI. The tax abatement is "equivalent to 75% of the difference between the property tax owed before and after development." The abatement lasts 10 years and the affordability requirements last 20 years. However, the implementation has been criticized. Critics, including the DC Fiscal Policy Institute, argue the city's approach "to awarding these abatements which lack criteria for awards and a rigorous and transparent evaluation of whether the project needs, and public benefits gained merit the abatement."[249]

Until this year, New York City provided developers with a partial tax exemption for new multi-family residential housing developments. In some areas, developers must meet an affordability standard to receive the exemption. The exemption cost the city $1.77 billion annually in lost tax revenue. The NYC Comptroller report called the program "expensive and inefficient" explaining that most income-restricted apartments built under the program were still too expensive for most New York City residents.[250]

The City of Philadelphia had a tax abatement program for two decades. The abatement program allowed developers to defer taxes. While the program was designed to encourage new development, it has been criticized as a giveaway to the wealthy. There was a significant uptick in development before the program was scheduled to end on December 31, 2021. According to a Center City District report, there were 9,400 units under construction in the City Center and surrounding area in late 2020 compared to 6,762 units in 2019.[251]

Density Bonus and Expedited Plan Review for Workforce Housing

To attract workers to the county, the Miami-Dade County Workforce Housing Development Program created a voluntary program that provides density bonuses and expedited plan review for the development of "workforce housing." In Miami-Dade, workforce housing is defined as "housing affordable for families whose incomes are within 60 to 140% of the County's area median income as reported by the United States Department of Housing and Urban Development and adjusted to family size ($42,600 to $99,400, respectively, for a family of four)."[252]

State Housing Fund Program

Arizona combines federal resources with state housing trust fund resources into a singular program called the State Housing Fund. Funds are available for the development of affordable permanent and transitional rental housing units. These funds are loaned as either gap financing for LIHTC developers or upon an award pursuant to a Notice of Funds Availability. For both scenarios, properties must comply with long term rent and income restrictions.[253]

Social Housing

Social housing is a housing model funded, built, and operated by a state's government. Under this model, government-owned land is sold to a private company, which then owns and operates housing units under public oversight. The model is currently used across the globe in cities like Singapore, Vienna, and Berlin, but has not been widely adopted in the United States.

Seattle is one of the first cities to contemplate the implementation of a social housing model in the United States. If Seattle voters approve the I-135 ballot measure in February 2023, city leaders would be tasked with establishing a new government agency called the Seattle Social Housing Developer. The agency would acquire, build, and manage permanently affordable housing for low- and middle-income residents in the Seattle area.[254] To build a new social housing development, the agency would start by obtaining a government grant to fund each project. From there, the agency would have the authority to sell tax-exempt bonds to investors for land acquisition and construction of housing. Once tenants move in, any profit generated by rent after maintenance expenses and loans are paid would be put toward future social housing projects.[255]

Similarly, Montgomery County, Maryland is building publicly owned housing by "leveraging relatively small amounts of public money to create a revolving fund that can finance short-term construction costs." The county is on track to build approximately 9,000 units over the next several years funded by a $50 million bond issuance.

Recommendations

With the demand for housing continuing to increase, Austin has taken considerable steps forward to improve the permitting process and reduce regulatory costs. The Development Services Department provides expedited review of building plans as a premium service. As a paid service, this program has the potential to increase the cost of housing development. To mitigate this inclination toward higher costs, the department has also created an Affordable Housing Office to monitor and expedite affordable housing development plans and permits. To compliment these efforts, we offer recommendations the city could implement to try and decrease the overall costs. The recommendations are grouped as initiatives to reduce the hard costs, ways to increase the variety of housing typology, reduction of regulatory constraints, improvement of incentive program efficiency, and changes to state programs.

Hard Cost Reduction

We recommend the city expand its workforce development strategies and partnerships to train more skilled workers to meet the demand and increase the number of middle-skill workers. We recommend the city pursue developing its own recycled materials warehouse and look for funding opportunities from new IIJA funding such as the Solid Waste Infrastructure for Recycling Grant Program. The grant program supports improvements to local post-consumer materials management and recycling programs, among other things.[256] We recommend the city continue to rezone areas as manufactured residence districts to maintain this form of affordable housing.

More Variety in Housing Typology

A primary strategy to lower the cost of housing in Austin is to increase the supply of housing units. The elimination or reduction of single-family zoning could be a potential solution in addressing affordability in Austin. Strengthening, updating, and relaxing zoning regulations would provide developers more tools to build a large diversity of housing options for the city. More specifically reducing the minimum lot size in single-family zones could increase the number of units being built in those zones. Additionally, ADUs could be a way to combat soaring housing costs within the City of Austin. In 2021, Council Member Kathie Tovo presented a resolution directing staff to explore creating pre-approved ADU blueprints for public use. [257]

Allow accessory dwelling units (ADUs) by-right in all single-family zoning districts

Greater allowance for ADUs (detached and internal) received broad support during the Land Development Code revision process, though perspectives differed as to appropriate site development standards, parking requirements, number of units, and effect of the "Preservation Incentive." ADUs provide greater choice in housing types and more transit-supportive density and should be allowed in Single-Family Zones. This includes increasing the maximum allowable size of an ADU above the 1,100 square feet and above the 15% of the lot size maximum requirement.

Although ADUs may produce smaller, more affordable units, they could be seen as less attractive to families or may possibly prevent people from living with roommates. Another issue to address is the lack of home ownership, and ADUs should be seen as more of a short-term solution rather than a long-term solution to housing affordability. Another issue is that homeowners may use ADUs as short-term rentals such as AirBnBs, which would not add to the housing supply. [258]

Reduce the Minimum Lot Size for Single Family Zones

Currently, the Minimum Lot Size for Single Family Zones is 5,750 square feet. Reducing the lot size would create more space for Single Family homes to be built within the appropriate zone and increase the number of units built in a more compacted area.

Allow fourplexes by-right in all single-family zoning districts along corridors

With appropriate consideration for areas most at risk for displacement, this proposed solution may help increase housing options and provide more transit- supportive density. Depending on how widely this proposal is applied, it may improve affordability and/or help to reduce the pace of increases in housing prices relative to new single-family houses that are easiest to build under the City's current Land Development Code.[259]

Allow more duplexes

As mentioned, eliminating minimum lot sizes would allow for more multi-family developments and increase housing supply within the city. The Land Development Code that created single-family residential districts (SF-1 and SF-2) expressly prohibited duplex development and increased the minimum lot sizes required for duplexes from 5,750 square feet to 7,000 square feet.[260] This eliminated duplexes as an option for many smaller lots in the central city. In 2003, a duplex's maximum height was dropped from 35 feet to 30 feet.[261]

In 2006, the McMansion ordinance imposed many height and bulk restrictions on central city dwellings, which prescribed new setback requirements and limited buildings to a maximum floor-to-area ratio of 0.4 to 1, severely restricting the size of duplex units.[262] Furthermore, the McMansion ordinance adopted a common wall requirement so duplex units can no longer be separated by carports, breezeways, or other open building elements.[263] In 2008, duplexes were required to be sitting side by side.[264]

Continue to rezone areas as manufactured residence districts

The city recently rezoned multiple mobile home parks as exclusive mobile home residence districts, protecting them from competition with developers. Continuing this trend will maintain manufactured housing as a form of affordable housing in Austin.

Limit Regulatory Constraints

As noted above, the City of Austin has taken multiple steps to revise and simplify compatibility requirements. The city should consider further relaxation of compatibility to increase opportunities for affordable housing development. This includes increasing building height restrictions of multifamily developments near single-family homes as well as removing single-family zoning's trigger on compatibility for adjacent developments.

Remove single-family zoning's trigger on compatibility for adjacent developments

The City Council should continue to move forward with its proposal to base compatibility triggers on zoning. Thus, only zoning should be allowed to trigger compatibility,[265] meaning that if a piece of land is zoned for an apartment complex but a single-family home has been built there, the presence of that house will no longer trigger compatibility requirements.[266] Removing how the land is currently being used and tying it to the zoning can be beneficial in the short-term to spur housing development, but in the long-term may not be a viable solution given the hybrid nature of Austin's form-based and Euclidean-based zoning regulations.

Increase building height restrictions along corridors

By contrast to peer cities with similar regulations, Austin is significantly more restrictive.[267] For example, buildings in Atlanta are permitted to reach at least 100 feet in height at 100 feet from a low-density residential zoning district.[268] In Seattle, buildings can reach over 300 feet at 100 feet from the low-density residential property line, while in Denver, buildings can reach up to 70 feet at 40 feet from the low-density residential property line.[269] Hence, the City of Austin should consider relaxing compatibility to increase opportunities for housing affordability for developments that could take advantage of the additional height to provide more affordable units.

Revise parking minimums

The City of Austin regulates parking minimums for residential developments, which adds expense to development and limits how development projects can use their land. As the city moves forward with parking requirement relaxation along transit corridors, we recommend that the city identify the expected cost-savings that developers could consider for additional housing units but-for the development of unused parking spaces. We recommend the city use these metrics to justify expanding eligibility of parking mandate relaxation. New developments will depend on the property's distance from compatibility-triggering properties, meaning that the amount of parking spaces mandated along transit corridors also depends on the property's distance from compatibility-triggering properties. As that distance-to-trigger decreases, there is an increase in the number of properties eligible for the parking minimum relaxation. Also, we recommend the city increase eligibility by increasing the buffer zone that determines which properties are along transit corridors.

Improve Incentive Program Efficiency

While the City has supported the development of over 650 affordable units through Affordability Unlocked, the number of available affordable units in Austin continues to fall short of the goals set in the Strategic Housing Blueprint. Given the limitations in Texas for requiring affordable housing development, the city should focus on continuously improving its current development incentive programs. The City of Austin has over fourteen different development incentive programs and most of these programs are neighborhood or area specific density bonuses.[270] Affordability Unlocked and S.M.A.R.T. Housing are the only two that are citywide measures.

Combine S.M.A.R.T. Housing and Affordability Unlocked

Literature on the use of S.M.A.R.T. Housing as a development tool since 2013 is scant, which may suggest that the program has continued to be infrequently used. Since its adoption in 2000, City Council has approved changes to the S.M.A.R.T. housing city code on two occasions: 2007 and 2014. The 2007 ordinance included language to "enhance incentives for developers" based on recommendations from the Austin Housing Incentives Task Force.[271] However, available literature from 2013 suggests those changes did not lead to increased program usage. The 2014 ordinance created changes to requirements concerning the location of new developments (and waivers associated with that requirement), but it did not include any changes to the overall incentive structure.[272]

The City of Austin should revise and expand upon the goals of both programs through the consolidation of S.M.A.R.T. Housing and Affordability Unlocked. Merging these two programs not only has the potential to relieve administrative burden associated with maintaining two separate application processes but presents the city with an opportunity to maximize participation and reduce overall development costs. This new, three-tiered model would incorporate the S.M.A.R.T. Housing requirements as the first tier and offer the same fee waivers that the stand-alone S.M.A.R.T. Housing program currently provides. Affordability Unlocked Type 1 and Type 2 would represent the remaining two tiers and would offer the same waivers provided currently. All tiers would receive the permit, inspection, and capital recovery fee waivers provided to S.M.A.R.T. Housing developments in addition to varying degrees of development requirement waivers based on the tier.

Figure 1: REVISED AFFORDABILITY UNLOCKED (THREE-TIER MODEL)

TIER	AFFORDABILITY SET-ASIDE REQUIREMENT	WAIVERS
TIER 1	10% Affordable Units	S.M.A.R.T. Housing Fee Waivers
TIER 2	50% Affordable Units	TIER 1 Fee Waivers + Affordability Unlocked Type 1 Waivers

TIER 3	75% Affordable Units	TIER 1 Fee Waivers + Affordability Unlocked Type 2 Waivers

As part of this consolidation, the city could re-evaluate its expedited permitting process and explore providing guaranteed expedited permitting to developers who participate in certain tiers of the program. This guarantee may incentivize developers to participate in the higher tiers of Affordability Unlocked, as it will give them the opportunity to address internal capacity limitations and challenges caused by permitting delays.[273]

Streamline the application process for S.M.A.R.T. Housing and Affordability Unlocked

If consolidation of the programs is not a viable option, at a minimum the applications for the programs should be consolidated. Rather than having applicants apply to two separate applications, the city should streamline the application process for S.M.A.R.T. Housing and Affordability Unlocked by building a process that requires only one web application. This front-end process change can be done even if the two incentive programs remain separate. Below are additional proposals for the improvement of the operation and participation of both S.M.A.R.T. Housing and Affordability Unlocked:

1. Change the percentage or minimum number of affordable units per development. This could either mean lowering the Affordability Unlocked set-aside requirement to 40% of the total units or require a certain number of units per development
2. Expand the categories of waivers to further incentivize developers to participate in these incentive programs. For example, Affordability Unlocked could expand impervious cover waivers; a potential change in this restriction would incentivize more development according to some affordable housing developers.
3. Develop a public data dashboard to show program utilization. Data around participation in each development incentive program should be consolidated and readily available. This information will help track program success and flag when programs need to be revised.
4. Require each participating developer to include an "Affordable Housing" page on its website. The page would illustrate the eligibility criteria and affordable rent values for their units. This information would provide transparency to tenants in search of affordable housing. The Rail, a housing development in Austin, has a page that includes this information. [274]

Expand criteria for a development project to receive a Resolution of Support

The city can also consider expanding its requirements for a development project to receive a Resolution of Support. Doing so would allow more opportunities for projects to gain points and be competitive in the application process. It also allows the city to implement local priorities into the

tax credit process. For example, the city could add a category for projects that meet a deep affordability threshold. To assist development projects become more competitive in the Housing Tax Credit application process, the city should increase the number of ways development projects can qualify for a Resolution of Support.

State Programs

While the previous recommendations concern city programs and direct areas of influence, the following recommendations rely on the city's ability to advocate for improvements to state programs.

Advocate the state to amend the Housing Tax Credit Qualified Allocation Plan to allow for more local control over proximity rules

The City of Austin can advocate for changes to the tax credit QAP to make proximity more flexible for developers. One potential avenue is through advocating for more local control over proximity requirements, such as allowing a Resolution of Support to waive requirements for developments that violate the Two Mile Rule or are in the same census tract. In this case, the city should also use its preference categories for a Resolution of Support to meet local affordable housing goals and combat affordable housing segregation. Proximity limitations in the Housing Tax Credit Qualified Allocation Plan reduce developer's ability to place developments and drive up the cost of land. The City of Austin can advocate to make proximity rules more flexible to local affordable housing goals.

Amend the Texas Bond Review Board Lottery Process to Prioritize Housing Ready to Proceed

Currently, the Texas Bond Review Board uses a lottery to allocate the private activity bonds. As the state continues to grow, there is an oversubscription/demand for PABs among developers in Texas. For this reason, an allocation process to fairly distribute PABs is necessary. Therefore, the team does not recommend an abolishment of the lottery system. Instead, the lottery should be reformed to better prioritize initiatives towards affordable housing projects that are ready to proceed. Another potential change would be for the amount of funding awarded through the lottery process be increased to provide more funds for affordable housing development. Any changes to the TBRB would need to be made at the state level through legislation, likely amending the Board's enabling statute, Texas Government Code Chapter 1372,[275] and potentially the administrative rules enacted by the TBRB to carry out the mandates laid out in statute, 34 TAC Part 9.[276]

Areas for future research

1. Develop ways to streamline and standardize the technical requirements to participate in the various city density bonus programs.
2. Evaluate Affordability Unlocked and the SMART Housing program processes to determine ways to better expedite permitting.

3. Develop and establish a selection of pre-approved ADU building plans for developers.
4. Conduct additional interviews and analysis to understand the impact of understaffing and regulatory delays on affordable housing development, particularly from a city perspective. Additionally, conduct research to gain a deeper understanding of how Austin's permitting process compares and contrasts to other major Texas cities.
5. Understand what factors impact developer decision-making, including how often developers either choose not to purchase land or choose to forgo affordable housing due to site-specific constraints, including heritage tree placement and costs.
6. Evaluate the impact of eliminating land dedication from parkland dedication fees and only administering a fee.
7. Evaluate the impacts and pathways to relaxing parking minimums in neighborhood zones.
8. Expand best practices evaluation to be more nationally comprehensive.

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