

DATE: January 28, 2020
TO: LDC Revision Team, City of Austin
FROM: Ian Carlton and Michelle Anderson, ECONorthwest
SUBJECT: AUSTIN EXISTING DENSITY BONUS PROGRAM – LDC-RELATED BONUS AREA

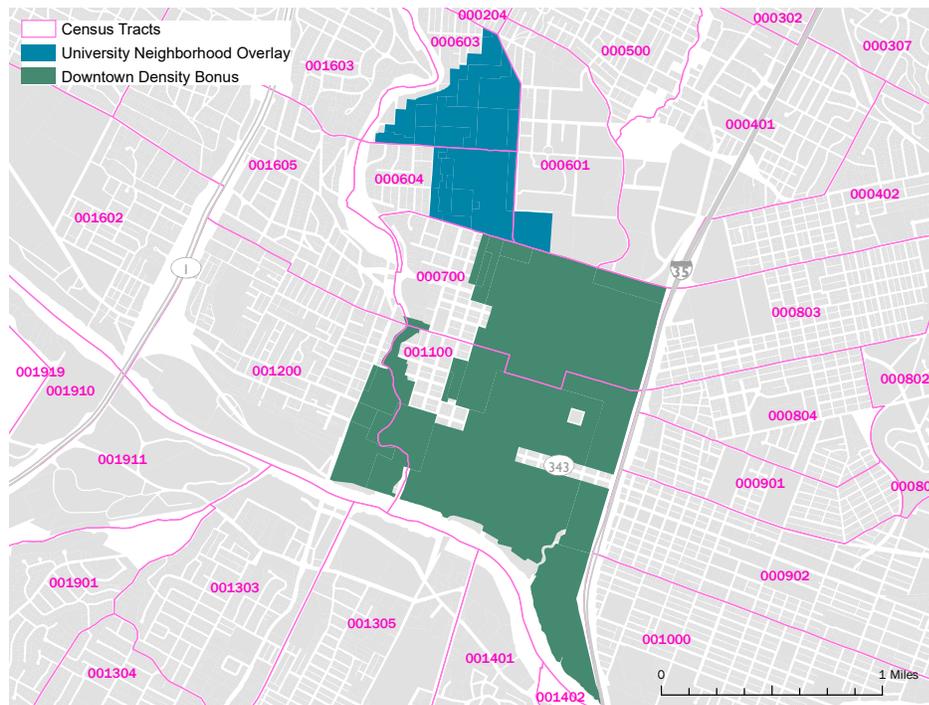
1. Background and Purpose

As part of the Land Development Code (LDC) Revision process, the City of Austin is seeking assistance to determine the appropriate amount of fees that developers may pay in lieu of building affordable housing units where the City's existing affordable housing density bonus programs apply. The LDC-related affordable housing density bonus programs (bonus areas) are the Downtown Density Bonus Program (including the Rainey Street Subdistrict) and the University Neighborhood Overlay (see Exhibit 1).

This memorandum presents ECONorthwest's analysis of in-lieu fees for LDC-related bonus areas, documenting methods and recommended per-square foot fees. The goal of the analysis is to inform the City's discussions about setting new in-lieu fees that capture a portion of the upside (or development benefit) of a density bonus, without discouraging developers from utilizing the bonus program. This will help address Austin City Council's goal of increasing affordable housing capacity from bonus programs and encouraging the production of income-restricted housing by the private market.

This analysis focuses only on calibrating in-lieu fees. It does NOT evaluate recalibration of the affordable housing bonus incentives or affordable housing performance requirements in the bonus areas; nor does it offer recommendations to change or improve the housing capacity delivered in each bonus area. Such a calibration would potentially adjust the target incomes and/or the set-aside required. Per direction from the City of Austin, this fee analysis assumed that these aspects of the LDC-related bonus programs do not change.

Exhibit 1. Existing Plan Areas



2. Approach

ECONorthwest worked with City of Austin staff, primarily with the Neighborhood Housing and Community Development (NHCD) department, to define an approach for calibrating the fees in lieu of affordable housing for both the Downtown Density Bonus Program (Downtown) and the University Neighborhood Overlay (UNO). At the highest level, this analysis evaluates the value a density bonus provides so that public benefits can be appropriately calibrated. Estimating the value of a bonus allows us to understand the capacity of developers to provide public benefit (affordable housing fees) while still advancing a development project that uses bonus entitlements. Developers may use base entitlements if the bonus-related public benefits cost more than the bonus value.

The value generated by a density bonus varies depending on market conditions and the regulatory framework. Calibrating an in-lieu fee to capture some of this value, which leaves some value on the table to encourage developers to use bonus entitlements and makes the policy resilient as market dynamics change, requires an understanding of developer's financial capacity. To make this determination, we ran financial pro forma models to reflect how developers, investors, and lenders evaluate real estate deals that could occur in Downtown and UNO.

More specifically, we evaluated the *residual land value* (RLV) to understand development feasibility and the value that a density bonus might provide. RLV is an estimate of what a developer would be willing to pay for land given the property's income from leases or sales, the

cost of construction, and the investment returns needed to attract capital for the project. While there are other quantitative methods for calculating density bonus value and calibrating affordable density requirements, such as an internal rate of return (IRR) threshold approach, all of the potential methods share drawbacks regarding the quality of inputs and sensitivity to those inputs. An advantage of the RLV approach is that it does not rely on land prices as an input. Rather, observed land prices can be compared with the model outputs to help calibrate the model and ensure it reflects reality.

ECONorthwest relied on NHCD staff to identify aspects of the regulatory framework of these bonus areas that we should reevaluate and those that should remain the same. The list below describes direction from NHCD for both Downtown and UNO:

- Keep the requirements of the plan area the same, such as the set-asides, and only evaluate the in-lieu fee
- Update the market information, including median family incomes (MFIs) to reflect current data (as of 2019)
- Capture different percentages of the bonus upside to calibrate the fee while preserving the incentive for a developer to deliver a bonus building (fifty percent of the upside of the bonus to calibrate the fee in Downtown and seventy-five percent for UNO)
- Evaluate how to calibrate the in-lieu fee so that it can vary by geography - the defining geography could reflect previously defined subareas found in regulations, but they do not have to match previously defined fee geographies
- Round the results of the fee analyses so that there is a small set of easily interpretable fee values

To maximize interpretability and enforcement, we discussed with staff how the results could be consolidated into a more legible policy format. Though an in-lieu fee program that was calibrated to the specific conditions of any given parcel could help mitigate the risk of setting a fee too low or too high, that level of precision would be complicated and difficult to implement. We therefore discussed and analyzed the potential ways that a fee could be defined for the bonus areas:

- Relative to the entire bonus area: set one fee for the entire geography of a bonus area
- Relative to the base zone: set a fee for each base zone (e.g. RM3, MU5, DC)
- Relative to the bonus entitlement incentives: set a fee for each of the mapped areas of bonus entitlements (e.g. 3:1 FAR and 90' in Downtown or 40' in UNO)
- Relative to the existing bonus area subdistricts found in the plan and overlay policies: set one fee for each of the mapped subareas (e.g. Core/Waterfront District in Downtown or Guadalupe District in UNO)

- Relative to the most recent bonus area fee geographies: set one fee to match areas that already have a fee (e.g. Core/Waterfront, Uptown/Capital, or Rainey Street in Downtown)

3. Recommendations

ECONorthwest completed this analysis for both bonus areas, presented the results to NHCD staff, and arrived at the following recommended in-lieu fees shown in Exhibit 2 and Exhibit 3. These fees are consolidated and rounded to a small set of easily interpretable fee values based on patterns observed in the analysis results. The residential fees take into consideration both rental and for-sale developments.

These residential fees could be higher if parking maximums in the draft code were adjusted. Currently, condominium sales prices in Downtown are associated with a parking provision of approximately one and a half stalls per unit, which is higher than the proposed maximum in the draft code of one stall per unit.

Exhibit 2. Calibrated In-Lieu Fees in Downtown

Zone or Subdistrict	Residential In-Lieu Fee per Square Foot of Bonus	Commercial In-Lieu Fee per Square Foot of Bonus
CC Zones	\$10	\$12
DC Zone	\$12	\$18
Rainey Subdistrict*	\$5*	\$12 for CC Zones \$18 for DC Zones

*This district requires that a developer provide both on-site affordable units and pay a fee. These fees are calibrated such that they account for the additional set-aside requirement for affordable units.

Exhibit 3. Calibrated In-Lieu Fees in UNO

Zone or Bonus Area	Residential In-Lieu Fee per Square Foot of Building	Commercial In-Lieu Fee per Square Foot of Building
UNO	\$1.50*	\$0

*This district requires that a developer provide both on-site affordable units and pay a fee. These fees are calibrated such that they account for the additional set-aside requirement for affordable units.

As noted, these fee recommendations are the result of the analysis and methods described in this memo. These fees are recommendations insofar as the methods, data, and processes demonstrate our best approach at calibrating the in-lieu while balancing development feasibility and the City’s affordable housing policy goals. As mentioned, there are many considerations to weigh that could affect the potential fees.

4. Methods

To determine the in-lieu fees, we analyzed the bonus areas based on the approach described above. This methodology matches the methods defined by NHCD for the calibration of the Citywide Affordable Housing Bonus.

This methodology included calibrating the in-lieu fees for each bonus area using the bonus area specifications, 2019 market variables, and zoning entitlements. We relied on the following zoning information:

- Downtown
 - LDC Base zones from [ALDC Chapter 23-3 Section C: Zones \(23-3C\)](#)
 - Revised LDC Downtown bonus area, from [ALDC Chapter 23-4 Section E: Affordable Housing Division 2: Downtown Density Bonus Program \(23-4E-2\)](#)
 - Revised LDC Rainey street from [ALDC Chapter 23-4 Section E: Affordable Housing Division 2: Downtown Density Bonus Program 070 Rainey Street Subdistrict Bonus \(23-4E-2070\)](#)
- UNO
 - LDC Base zones from [ALDC Chapter 23-3 Section C: Zones \(23-3C\)](#)
 - Revised LDC UNO from [ALDC Chapter 23-3 Section C: Zones Division 10: Overlays 130 University Neighborhood Overlay \(23-3C-10130\)](#)
 - UNO subareas from revised [Ordinance 20191114-067](#) and [revised UNO District Subdistrict map](#)
 - UNO additional height limits from [UNO Additional Height & Affordability map](#)

These LDC-related bonus areas have base entitlements from the LDC revision and certain bonus entitlements defined by the regulating plan or overlay policies. As mapped in the LDC revision from October 2019, there were more than 10 discrete base-to-bonus combinations in Downtown and more than 60 in UNO. To illustrate how multiple discrete base-to-bonus combinations are possible, one of the base zones in Downtown, CC-60, was mapped to four areas with different bonus entitlement incentives: (1) 3:1 FAR and 90 feet in height, (2) 4:1 FAR and 100 feet in height, (3) 5:1 FAR and 120 feet in height and 8:1 FAR, and (4) 200 feet in height. Similarly in UNO, the base zone of MU4 was mapped to four areas with different bonus entitlement incentives: (1) 65 feet in height, (2) 75 feet in height, (3) 95 feet in height, (4) 175 feet in height. These discrete combinations, and the building types able to use them, lead to substantial variance in the potential fees.

The bonus entitlements defined by the Downtown Density Bonus Program focus on changes to floor area ratio (FAR) and height which can be found in in the LDC (see the map in Figure 23-4E-2030(1): Downtown Density Bonus Program Map). Other entitlements, like dwelling units

per acre (DUA) remain the same for the base and bonus entitlements of the underlying LDC base zone.

The bonus entitlements defined by the University Neighborhood Overlay focus on changes to height which can be found in the LDC (see the map in Figure 23-3C-10130(1): University Neighborhood Overlay Height Districts). A recent UNO ordinance offers an additional height bonus of either 25 or 125 feet (found in the Additional Height & Affordability map) if the building provides an additional 10% set aside of affordable units. Additionally, UNO has impervious coverage limits in the subareas that supersede those in the base zone, which can be found in 23-3C-10130-F of the LDC. We incorporated these impervious coverage limits into our analysis, for both the base and bonus entitlements, by referencing the map of subareas found in the revised UNO District Subdistrict map. Other entitlements, like FAR and DUA, remain the same for the base entitlements of the underlying LDC base zone, but are not a regulating entitlement of the bonus area and were therefore treated as unlimited for buildings buildable under the bonus.

In addition to the variety of base-to-bonus combinations, the policy requirements of these bonus areas differ in several ways. These policy requirement differences affect the bonus fee calibration, such as the ratio of market rate to affordable square feet required with the bonus, the target depth of affordability required with the bonus, and minimum requirements for affordable units in the either the bonus area or entire building. These relationships are shown in Exhibit 4 and are used to calibrate the in-lieu fees for each bonus area.

Exhibit 4. Bonus Area Requirements

	Downtown Density Bonus	Downtown Density Bonus – Rainey	UNO	Comments
To what area does the affordability requirement apply?	Bonus square feet	Bonus square feet	Entire building square feet	
First bonus defined by:	Bonus height and FAR map in ordinance / code	Subdistrict requirement: greater than 40' up to 8:1 FAR	Bonus height map in ordinance / code	
First bonus triggers affordability requirement in which segment of the building	N/A	Bonus area of subdistrict bonus only	Entire building	
Depth of affordability (rental) in first bonus	80%	80%	60% / 50%	
Depth of affordability (for-sale) in first bonus	120%	120%	60% / 50% *	*the policy is not specific for for-sale, we assumed same as rental
Set-aside required by using the first bonus	10 bonus square feet for each (1) affordable square feet	5%	20% (or 10% plus a per square feet fee)	
Second bonus defined by:	N/A	Downtown bonus height map	UNO additional bonus height map	
Second bonus triggers affordability requirement in which segment of the building	N/A	Bonus area greater than subdistrict bonus area	Entire building	
Depth of affordability (rental) in second bonus	N/A	80%	50%	
Depth of affordability (for-sale) in second bonus	N/A	120%	50%*	*the policy is not specific for for-sale, we assumed same as rental
Set-aside required by using the second bonus	N/A	10 bonus square feet for each (1) affordable square feet	10% (in addition to first bonus requirements)	

We first assessed the allowed entitlements in each bonus area – both LDC base zones and bonus area bonus entitlements – which informed the series of more than 70 prototypical buildings we developed for our model. We produced multiple building prototypes that conform to each base zone and bonus entitlements, on multiple prototypical lot sizes appropriate for the respective bonus areas, and of different land-uses (residential rental, residential for-sale, and commercial). We also validated these prototypical buildings by researching and comparing them to recent developments (built or under construction during the last five years) in the respective bonus areas.

These lot sizes were purposefully designed to be evenly divisible by one another in the analysis and are therefore referred to as “prototypical.” In reality, there are more lot sizes present in each

bonus area than what we modeled. However, lots can be combined, or divided, to suit the needs of common developments. We therefore looked at the approximate lot sizes of typical developments in the bonus areas to arrive at a consolidated list of “prototypical” sizes (see Exhibit 5).

Exhibit 5. Number of Prototypes by plan area and lot size

Lot Size (sf)	Downtown / Rainey	University Neighborhood Overlay
7,500	N/A	3 rental, 3 for-sale, 0 commercial
10,000	6 rental, 6 for-sale, 8 commercial	6 rental, 6 for-sale, 8 commercial
15,000	5 rental, 5 for-sale, 3 commercial	5 rental, 5 for-sale, 3 commercial
20,000	14 rental, 14 for-sale, 18 commercial	14 rental, 14 for-sale, 18 commercial
30,000	20 rental, 20 for-sale, 20 commercial	20 rental, 20 for-sale, 20 commercial
40,000	23 rental, 23 for-sale, 28 commercial	23 rental, 23 for-sale, 28 commercial
120,000	N/A	38 rental, 38 for-sale, 40 commercial

We gathered 2019 real estate data from multiple sources including CoStar, Zillow, the Austin Board of Realtors, RS Means, and various interviews. These data included building program assumptions (e.g. unit mix, parking ratios, floor heights), operating assumptions (e.g. sales prices, rents, vacancy, operating costs), development costs (e.g. hard costs, soft costs), and valuation metrics (i.e. return on cost and yield thresholds). These values were vetted with the City’s Economic Development department, which conducts real estate analyses for other purposes, and tested initial results against recent projects and land prices.

Using this information, we then ran financial pro forma models to evaluate the RLV of the prototypes we produced on all the lot sizes. In the pro forma models, we compared the total cost to build the prototypes to the respective revenue and value of the prototype. For the commercial and residential rental prototypes, this meant analyzing the net operating income of a stabilized year (rental revenues less vacancy and operating expenses) and dividing by a return on cost threshold to arrive at an estimate of total value. We then subtracted total project costs from this value to arrive at the RLV. For the residential for-sale prototypes, we applied a profit margin to the total development costs and subtracted the resulting cost (inclusive of profit) from the net sale proceeds (total sales of units less sales commission) to arrive at the RLV.

We then compared the RLV results for the development options buildable only under base entitlements to those buildable only under bonus entitlements to identify the value that might be conferred by a bonus. To arrive at an in-lieu fee per square foot, we then took a portion of the incremental value of the bonus and divided it by the bonus square footage (or in some cases, the square footage of the entire building depending on the relevant bonus policy). Reserving a portion of the incremental value helps preserve the incentive for the developer to build under the bonus entitlements instead of the base, while still directing value toward the fee. Leaving some value on the table, rather than charging a fee closely approximating the value of the bonus, also affords some policy resilience as market dynamics change over time. We illustrate this methodology in Exhibit 6 using generalized numbers.

Exhibit 6. Illustration of Calibration Methods

Row	Step	Result	Calculation
A	Value of base building	\$1M	
B	Value of bonus building	\$3M	
C	Incremental value of the bonus building	\$2M	B - A
D	Portion of incremental value directed to public benefit (fee)	50%	
E	Nominal amount available for fee	\$1M	C * D
F	Square footage of building built under bonus entitlements*	100,000	
H	Estimated in-lieu fee per square foot of bonus	\$10	E ÷ F

*Some existing bonus areas calibrate the fee per square foot of building as opposed to per square foot of bonus, thus changing the denominator in this equation to the square footage of the entire building. We calibrated the fees in the bonus areas accordingly.

Given that the value of a bonus can differ between land-uses, we separated the fees into three categories associated with each use: residential rental, residential for-sale, and commercial. To ensure the viability of the bonus, the in-lieu-fees were based on the value differential between bonus buildings of a particular use compared to the most valuable base buildings of any use.

To do this, we first evaluated all prototypes buildable only under the base entitlements, irrespective of land use, and found the building with the highest and best RLV. This reflects the market reality that multiple development actors are often competing for land to build different product types and that the landowner is incentivized to sell to the highest bidder regardless of the uses of their development prospects. We then evaluated all prototypes buildable only under the bonus entitlements and found the buildings with the highest RLVs within the respective three land-uses. The highest bonus RLVs for each land use were compared to the highest base RLV among all potential base uses. We then used the methodology illustrated in Exhibit 6 to identify a fee per square foot for each land-use.

We completed this analysis on the sample of prototypical lot sizes for each bonus area (see Exhibit 5) and averaged the fee across all respective lot sizes. Certain buildable prototypes on some lot sizes had the capacity to pay a higher fee, while others could not (due to a variety of factors such as building type and the respective construction costs and achievable rents). Averaging across lot sizes was a simplification method for arriving at a single fee.

Once we derived the fees for each use (averaged across lot sizes), under each unique base-to-bonus combination, we aggregated and simplified the results based on a variety of ways that the fee could be applied in practice: by the entire bonus area, by base zone, by bonus entitlement incentives, by existing bonus area subdistricts, and by existing bonus area fee geographies. We considered whether the resulting fees exhibited consistency or patterns, which helped us choose a single fee specification that best reflected the variation across regulatory and market differences. The fees we present in this memo are recommended based on the results of this testing.

Lastly, we rounded the in-lieu fees we calibrated to a small set of easily interpretable fee values based on patterns observed in the results and conversations with NHCD. We took the dollar figures from our analyses and rounded them to the nearest whole dollar.

Key Methodology Decisions

This analysis was intended to inform a policy discussion, not determine an outcome. There are limitations to any analysis – the bullets below detail decisions we made over the course of the analysis that could change the recommendations presented in this memo:

- We analyzed prototypical developments on prototypical lot sizes instead of specific developments in areas eligible for the bonus programs. We did NOT conduct a parcel-level evaluation that accounted for precise lot sizes and existing land uses.
- We compared the bonus prototypes to the highest value prototype that was buildable under the base entitlements (irrespective of land-use) instead of comparing to the highest value of prototypes buildable under the base entitlements within a comparable land-use.
- We chose site sizes appropriate for the bonus area instead of analyzing all potential lot sizes found in the bonus area.
- We picked from an array of buildings that conformed to the base entitlements and picked from an array of buildings that conformed to the bonus (the most financially feasible of each).
- We identified the highest-value prototype by lot size, and then averaged the resulting fees across the lot sizes. This was done irrespective of the distribution of lot sizes and available parcels in each bonus area.

We arrived at the recommendations following much discussion of our analytical results. The simplified fee structures are intended to balance the realities of development in Downtown and UNO, the current complexity of the bonus programs, the need for an easily interpretable policy that will enable bonus uptake and provision of affordable housing benefits, and the ability of the City to update the policy in the future. This fee calibration methodology can be replicated by NHCD in the future as market dynamics change. City staff can determine when the fee schedules should be revisited based on testing by others, fee revenue patterns, and market dynamics (quantity and scale of developments, construction costs, and market prices/rents).