Austin Voluntary Density Bonus Program Issues

I. Total Number of Apartment Rental Units Built Annually in Austin is Too Low to Generate Enough Affordable Units: From 2005-2016, 3200-3500 TOTAL apartment units per year on average have been built in Austin, depending on the methodology and source. (Axiometrics; Austin Investor Interest). Assuming every project participated in the density bonus program, at 10% affordable units, only 320-350 units a year would be produced. See attachment by Ed Wendler, Jr.

III. Voluntary Programs Like Austin's are Much Less Effective than Mandatory Programs.

- "Experience and research indicate mandatory inclusionary zoning are more effective at generating a larger supply of affordable housing than voluntary programs." Brunick, The Housing Debate: The Effectiveness of Mandatory Programs Over Voluntary Programs (American Planning Association Sept 2004)
- "In general, mandatory programs are better suited to produce housing that is affordable to low and very-low income households (below 80% and 50% of the medium MFI respectively." Brunick, The Housing Debate: The Effectiveness of Mandatory Programs Over Voluntary Programs (American Planning Association Sept 2004)

California's Voluntary Density Bonus Program Experience:

"Mandatory programs produce the most very-low- and low-income affordable units compared with voluntary programs, both in terms of absolute numbers and percentage of total development. Zatz, Creating Affordable Housing: Inclusionary Housing Programs in California (California Coalition for Rural Housing 1994)

"In fact, the report found that only 6% of the 107 California communities that reported inclusionary housing programs stated that the program was voluntary. Two of those communities, Los Alamitos and Long Beach "specifically blame the voluntary nature of their programs for stagnate production despite a market-rate boom." Brunick, et. al., "Voluntary or Mandatory Inclusionary Housing? Production, Predictability, and Enforcement (Business and Professional People for the Public Interest 2004)

Massachusetts' Voluntary Density Bonus Program Experience: "[T]here did exist voluntary provisions under which developers could obtain a density bonus in return for the creation of affordable housing. While such voluntary provisions had existed for up to 10 years in [Cambridge], they had failed to create any affordable housing." Inclusionary Zoning: Lessons Learned in Massachusetts (National Housing Conference 2002), pp. 23-24

"While nearly all IZ programs in the San Francisco area have produced some affordable units, some 43% of the jurisdictions in suburban Boston with a [voluntary] IZ on the books have not produced any units...." The Effect of Inclusionary Zoning on Local Housing Markets (Furman Center 2008), p 8.

The City's Household Affordability Prescription Paper Policies Will Not Produce Affordable Housing for Low-Income Austinites

By Fred I. Lewis (July 11, 2016)

I. Overview. The City's Household Affordability Prescription Paper ("Prescription Paper") fails to address Austin's low-income affordable housing crisis. This memo makes six main points:

• Low-income renting households (defined here as 50% of Median Family Income ("MFI")) face the largest and severest housing crisis in Austin.

• The Prescription Paper fails to address Austin's need for affordable low-income rental housing.

• CodeNEXT will provide little positive benefit for low-income affordable housing. Regardless of the city's new land development regulations, low-income housing will remain unprofitable and will not be built by the market.

- Austin's current density programs are ineffective, producing only 1163 units in ten years, and only 232 of these are at 50% MFI or less.
- Proposals to strengthen Austin's density bonus programs are unlikely to appreciably increase low-income affordable housing- and may in fact be counterproductive.

• Broad-based, low-rate affordable housing linkage fee on new construction can provide needed public funding necessary to preserve and produce low-income affordable housing.

II. Low-Income Austinites Have Austin's Greatest Affordable Housing Needs. Low-income Austinites face the city's most severe and acute affordable housing problems. This growing crisis has forced many to leave Austin or to endure a severe income burden for housing. While Austin's housing crisis has worsened, poverty has increased significantly, with the percentage of children in poverty rising from 17% to 30%.¹ Unfortunately, low-income Austinites have not shared in the city's general prosperity during our economic boom.

Thirty-three percent of Austinites who rent (60,000 rental households) are currently extremely low-income, earning less than \$25,000 a year.² Nearly 48,000 of these households lack affordable rental housing³, which has worsened in the last few years as 7,000 older, affordable housing units have been eliminated.⁴ There are an additional 22,700 Austin renting households who are very low-income, earning only \$25,000-\$34,999 a year (\$37,700 a year is 50% of MFI for a family of four).⁵ Forty-six percent of Austin renting households– nearly half – make less than \$35,000 a year, or less than 50% of MFI.

¹ 2014 Comprehensive Housing Market Analysis (City of Austin), Executive Summary Section, p. 5

² 2014 Housing Market Analysis, Executive Summary Section, pp. 8-9

³ Affordable housing is defined as housing for which households pay 30% or less of their gross income. 2014 Housing Market Analysis, Executive Summary Section, p. 10

⁴ 2014 Housing Market Analysis, Executive Summary Section, pp.8-9

⁵ 2014 Housing Market Analysis, Section 1, pp. 10; Section 2, pp. 26. This memo's median family income household figures originate from the City's 2014 Housing Market Analysis; Austin's 2016 median family income

Only Austin households earning less than \$25,000 a year face an affordable housing shortage today, according to the City.⁶ As a result, Austin's "top affordable housing need" is addressing "a shortage of deeply affordable rental units (primarily those renting for less than \$500 a month) for renters earning less than \$25,000 per year."⁷

III. The City's Household Affordability Code Prescription Paper has 5 major goals; none of these goals address improving affordable housing for low-income Austinites ⁸ As the following analysis shows, the Prescription Paper's five goals do not address the affordable housing needs of low-income Austinites:

1. The Prescription Paper's goal of "improving alignment between land use and transportation" does not address directly the housing needs of low-income Austinites. The Paper presents no evidence that providing more transportation options along corridors will increase low-income affordable housing. There are reasons, however, to believe that providing alternative transportation options will accelerate the destruction of older, low-end housing along these corridors.⁹

Under current projections, Austin is likely to lose in the next decade from market forces 40,000 affordable housing units along transportation corridors even without increased transportation alternatives.¹⁰ If the City were to enhance these transit centers and corridors, and provide effective alternative transportation options as recommended in the Prescription Paper, then the likely result will be even less affordable housing along these corridors for low-income Austinites.¹¹ By allowing more uses, types of structures, and density on the land along these transit corridors, the City's proposed policies likely will encourage developers to tear down the remaining lower-income affordable apartment units and replace them with new, high-end units. As walkable, mixed use developments with multiple transportation options become more desirable, developers will seek to maximize profits by displacing low income Austinites and gentrifying the transit corridors. As an example, developers might purchase and then tear down an older, lower-end apartment complex with 100 units along a transit corridor, and replace it with 200 high-end, more profitable units. Although the developer would be required to

figures are higher. 2016 Program Income Limits by Household Size (City of Austin Neighborhood Housing and Community Development Dept., March 28, 2016).

⁶ Draft City of Austin Density Bonus Policy (Neighborhood Housing and Community Development Dept., June 2016), pp. 8-9

⁷ 2014 Housing Market Analysis, p. 10.

⁸ Developing Complete Communities for All Austinites: Household Affordability Code Prescription (City of Austin, 2016), pp.10-11.

⁹ Kahn, Gentrification Trends in New Transit-Oriented Communities (UCLA, January 2007), pp. 17, 25-26.

¹⁰ McGlinchy, With Oracle's Expansion, Some Renters Lose, Others May Gain (KUT Radio, June 8, 2016).

¹¹ Kahn, Gentrification Trends, pp. 25-26.

produce 20 "affordable" units under the City's density bonus program, the result would be a net loss of 80 affordable units.¹²

2. The Paper's goal of "promoting opportunities to increase the housing supply with different types, sizes, and diversity of product" will not necessarily provide low-income affordable housing. The housing marketplace has proven incapable of providing low-income housing— whatever the housing type. Whether Euclidean or form-based zoning applies, the housing market alone cannot provide affordable housing for low-income people. See Section IV below.

3. The Paper's goal to "improve the development review process" will not produce more low-income affordable housing. Assuming that Austin's permitting process were more efficient, it would result in only marginal savings; there is no evidence that these marginal savings are significant enough to overcome the large profitability problems with building low-income affordable rental housing. There also is no assurance these savings will be passed on to renters, because owners price their rental units at what the market will bear.

As explained below, the market alone doesn't provide low-income housing anywhere in the United States— whether the locale has many or few land use regulations, or has a well-functioning or poorly administered permitting process. Government funding is the only proven approach to overcome the inability of the housing market to provide low-income housing. See Section IV below.

4. While the goal of "balancing the needs of affordability with other public needs and values" is an indisputable bromide, it is not particularly appropriate for low-income Austinites who are struggling just to get by day-to-day. Their economic struggles are the central concern of their lives, unlike middle class and affluent Austinites. Affordable housing is an essential necessity for low-income Austinites and cannot be balanced easily against other needs.

5. The last goal of increasing "affordability impacts on small business including cultural arts", while important, has nothing to do with addressing low-income affordable housing.

In sum, while the City's Household Affordability Code Prescription Paper may fulfill other public policy goals, it does not even speak to affordable housing for low-income Austinites. The Paper appears to recognize this fact, stating: "It must be noted that *many other actions outside of land development regulations are needed* in order to comprehensively address our affordability

¹² Levin, The Irony of 'Inclusionary" Zoning, 54 Southern California Law Review 1167, 1215-1216 (1981); 'Largest-Ever' Silicon Valley Eviction to Displace Hundreds of Tenants (The Guardian July 7, 2016); Redmond, Plan that Could Lead to Massive Displacement Moves Forward, Quietly (48 Hills December 20, 2015)

challenge." (emphasis added) ¹³ "A new Land Development Code *will not be the solution* for Austin's affordability challenges." (emphasis added)¹⁴ The Prescription Paper is not intended to, and will not, help low-income Austinites obtain affordable housing. Its policies, however, actually may worsen the affordable housing gap for lower income Austinites by incentivizing the destruction of existing lower income housing stock (as noted above).

IV. New Land Development Regulations Will Not Produce More Low-Income Affordable Housing in Austin Because Such Housing Will Remain Unprofitable. Throughout the United States, the housing marketplace – whatever a city's land development regulations – has never provided more than a negligible amount of affordable housing for low-income Americans.¹⁵ Studies have shown repeatedly that "it is nearly impossible to build and operate rental housing that is affordable for extremely low-income renters (50% MFI or below] in most market."¹⁶ Nationally, only 5% of affordable housing units for households at 50% MFI or less are provided by the market without government funding.¹⁷

Developers cannot make low-income rental units "pencil out," meaning they cannot make a profit at the rental prices that low income renters can afford. The basic reason the market does not work for low-income housing is that low-income renters lack the income to afford even the most basic rental units. ¹⁸ The marketplace alone has never produced low-income affordable housing, and there is no reason to expect that to change in the future.¹⁹

Because of these housing market realities, American cities that have the smallest affordability gap for low-income renters are the ones that provide the most government housing programs. Cities in the Northeast and Midwest, although they often have more restrictive land use policies, have the smallest housing affordability gaps, while the South and West have the largest gaps.²⁰ "Counterintuitively, some counties with the most expensive housing markets—including Boston, San Francisco, and Washington D.C. – have the smallest gaps in affordability of extremely low-income renters. For the most part, these reflect a higher proportion of rental units targeted to extremely low-income renters, not fewer extremely low-income renters." ²¹ These cities have succeeded by providing more government programs to produce or preserve affordable low income housing.

¹³ Household Affordability Code Prescription, p. 9

¹⁴ Household Affordability Code Prescription, p. 10

¹⁵ Leopold, et. al., The Housing Affordability Gap for Extremely Low Income Renters in 2013 (Urban Institute 2015), p. 1

¹⁶ Leopold, p. 2; See also America's Rental Housing: Evolving Markets and Needs (Harvard University's Joint Center for Housing Studies 2013), p. 6

¹⁷ Leopold, p. 5

¹⁸ Leopold, p. 2; America's Rental Housing, p. 6.

¹⁹ Logan and Molotch, Urban Fortunes: The Political Economy of Place (2nd Ed. 2007), pp. 21-49 (the housing marketplace does not follow neo-classical models of supply and demand)

²⁰ Leopold, pp. 9-13

²¹ Leopold, pp. 9-23

V. The City's Density Bonus Proposals Will Produce Little Low-Income Affordable Housing.

Although Austin's current density bonus programs have had negligible impact in providing lowincome affordable housing, the Prescription Paper recommends that the programs should be "strengthened" and made more "consistent". ²² It provides little programmatic details other than suggesting that the program be focused on "Imagine Austin Centers and Corridors".²³ The Paper is convinced that "the density bonus program remains a powerful tool to achieve a multitude of outcomes with regard to affordability."²⁴ Similarly, in a just released report on the City's density bonus policies, the Neighborhood Housing and Community Development Department is proposing a third-party comprehensive economic analysis "to inform *expanded* density bonus programs under CodeNEXT."(emphasis added)²⁵

A. Austin's Current Density Bonus Program Produces Few Housing Units for Low-Income

Austinites. Austin's and other cities' density programs have proven ineffective at producing significant low-income affordable housing.²⁶ Opticos Design, in its Austin Code Diagnosis, recognizes that Austin's "current density bonus programs are not yielding the needed results."²⁷ Over ten years, Austin's density bonus programs have produced only 1163 units and \$4.8 million in fees-in- lieu of units, compared to a current need for 48,000 affordable housing units for low-income Austinites at 30% of MFI.²⁸ Of these 1163 units, only 232 units (20%) are available for low-income Austinites at 50% MFI or less.²⁹ Even more telling, only 15 rental units have been produced for Austin households at 30% MFI or lower, and those were produced voluntarily by the builder.³⁰

Most units (702) are at 80% MFI and appear to be one bedroom efficiencies that rent at or close to market rate³¹— meaning these units could have been built by the market without the city's programs. 80% MFI units also are severely unaffordable for low-income Austinites (50% MFI or less, and efficiency units are unsuitable for families with children.

²² Household Affordability Code Prescription, pp. 13-16

²³ Household Affordability Code Prescription, p. 16

²⁴ Household Affordability Code Prescription, p. 14

²⁵ Draft City of Austin Density Bonus Policy, p. 50

²⁶ Draft City of Austin Density Bonus Policy, pp. 39,41-42, 46; Cornerstone Partnership, Policy Options for Refining Seattle Incentive Zoning Program (July 2014), pp. 9-18; Levin, The Irony of 'Inclusionary" Zoning, pp. 1178, 1192-1193, 1197, 1215-126; Johnston, et. al., Selling Zoning, 36 Washington Journal of Urban and Cotemporary Law 45, 52 (1989)

²⁷ Opticos Design, Land Development Code Diagnosis (May 5, 2014), p. 57

²⁸ Draft City of Austin Density Bonus Policy, pp. 9, 15

²⁹ Draft City of Austin Density Bonus Policy, p. 15

³⁰ Draft City of Austin Density Bonus Policy, p. 15

³¹ Draft City of Austin Density Bonus Policy, p. 15; Prioritization of Affordable Housing Development Audit (City of Austin Auditor, November 2015), pp. 10. Conversation with Austin Apartment Developer Ed Wendler, Jr. (July 8, 2016). See also Levin, The Irony of 'Inclusionary' Zoning, pp. 1178, 1192-1193, 1197, 1215-126

More than half of the" affordable housing units" (593) were built under the University Neighborhood Overlay (UNO) Density Bonus Program.³² These units mainly serve students, who if they are poor, they are only voluntarily poor for a temporary period.

B. The Paper's Proposed New Density Bonus Policies Will Not Produce Substantial Low-Income Affordable Housing. Revising the City's programs is unlikely to provide significant increases in low- income affordable housing. First, developers generally are not interested in including low-income units in their new, higher-end apartment complexes. Thus, they will continue to game the system by seeking waivers, providing efficiencies that rent at market rates, failing to qualify applicants, and neglecting compliance. Second, many new developments do not need extra density, and, therefore, developers have no incentive to participate in the density bonus program. And this lack of demand for density bonuses will grow under CodeNEXT, with its enhanced land use flexibility. Third, for those new developments that may want extra density, many developers will decline to participate if the City increases the program's requirements for affordable units or deepens the affordability. As shown in other cities, the economics of the development often will not work if a city strengthens its affordable unit requirements.³³

Because of the inherent unprofitability of building low-income housing, Austin's density bonus program proposals are incapable of providing significant onsite affordable housing for low-income Austinites. As noted recently by the City's Neighborhood Housing and Community Development Department, developers almost always prefer paying the fee-in-lieu rather than provide onsite low-income affordable housing units: "While the existing density bonus policies do not secure onsite units affordable to this level [30% MFI], revenue secured through the fee-in-lieu of onsite units provide a funding source to support the development and preservation of housing affordable to the lowest income households."³⁴ As a funding source, which is the primary means by which the density bonus program serves low-income Austinites, the program has produced only \$4.8 million over ten years– less than half a million a year. ³⁵

V. Linkage Fees: A Solution for Austin's Low-Income Affordable Housing Crisis.

A. High-Growth Cities Are Turning Away from Density Bonus Programs and Adopting Linkage Fees. A number of cities have recognized recently that their density bonus programs have proven ineffective and they are replacing their programs with affordable housing linkage fees. Cornerstone Partnership, which the City cites as leading experts on density bonus programs³⁶, recommended that Seattle adopt a linkage fee program rather than strengthening its density

³² Draft City of Austin Density Bonus Policy, p. 15

³³ Cornerstone Partnership, Policy Options for Refining Seattle Incentive Zoning Program (July 2014), pp. 9-18; Rosen, Seattle Affordable Housing Incentive Program Economic Analysis (July 16, 2014), p. 11; Johnston, et. al., Selling Zoning, p. 52

³⁴ Draft City of Austin Density Bonus Policy, p. 9

³⁵ Draft City of Austin Density Bonus Policy, p. 15

³⁶ Draft City of Austin Density Bonus Policy, p. 32-33

bonus programs.³⁷ Cornerstone analyzed revising Seattle's voluntary density bonus program, which is similar to Austin's; it determined that while this "would likely result in incremental increases in the number of affordable housing units produced through the program, it is unlikely to dramatically change the level of production. Many local stakeholders expressed

frustration with the limited impact of Incentive Zoning given the overall strength of Seattle's real estate market."³⁸

Cornerstone found that because of housing economics, most Seattle developers paid a fee-inlieu, rather build onsite affordable units.³⁹ It also found that many developers were not interested in the extra density bonus, even without the affordable housing requirements, because it did not fit their projects. Cornerstone noted as well that "increasing the performance requirements under a voluntary incentive zoning framework could be counterproductive".⁴⁰ "Inclusionary zoning requirements can impact development if they are set too high based on local conditions. Requirements that are too high can push development costs to a point that new projects will not be profitable. In this case, owners of property will decide it is not in their interest to redevelop their land."⁴¹

Cornerstone recommended that Seattle replace its density bonus program with an affordable housing linkage fee program: "[a]n increasingly popular alternative to inclusionary zoning [density bonus] programs] is to charge linkage fees on new residential or commercial developments to pay for affordable housing."⁴² Dozens of fast-growing cities with housing crises, including Seattle, have adopted recently linkage fees as a better solution for providing affordable housing, including low-income housing.⁴³

B. What is a Linkage Fee? Affordable housing linkage fees are applied by the square foot on all new commercial and/or residential construction. It is paid by the developer at permitting based on thei building plans. The revenues usually are placed into a dedicated trust fund for lower income affordable housing. Linkage fees are simple to administer and collect, unlike density bonus programs, which frequently involve lengthy negotiations, compliance problems, and monitoring costs. Moreover, since the city controls the funds, the city can dictate a deeper income level, permanent affordability, and the unit sizes and configurations so families with children are served.⁴⁴

³⁷ Cornerstone Partnership, Policy Options for Refining Seattle Incentive Zoning Program, p. 21

³⁸ Cornerstone Partnership, Policy Options for Refining Seattle Incentive Zoning Program, p. 5

³⁹ Cornerstone Partnership, Policy Options for Refining Seattle Incentive Zoning Program, pp. 9-19

⁴⁰ Cornerstone Partnership, Policy Options for Refining Seattle Incentive Zoning Program, p. 19

⁴¹ Cornerstone Partnership, Policy Options for Refining Seattle Incentive Zoning Program, p. 11

⁴² Cornerstone Partnership, Policy Options for Refining Seattle Incentive Zoning Program, p. 21

⁴³ Cornerstone Partnership, Policy Options for Refining Seattle Incentive Zoning Program, p. 21; Overview of Commercial and Residential Linkage Fee Programs in US and Colorado (Denver Office of Economic Development January 2016); Denver City Council Briefing on Affordable Housing Revenue (February 6, 2016), p. 10

⁴⁴ Denver City Council Briefing on Affordable Housing Revenue (February 6, 2016), pp. 17, 20

The rate of the linkage fee is based on an in-depth study, called a nexus study. The Austin City Council authorized in its fair housing resolution of June 16, 2016 such a nexus study by outside experts.⁴⁵ Nexus studies look at the projected additional employees from new retail, hotel, commercial, and residential developments, and then the studies calculate these employees' likely income by job classification. Comparing these new employees' projected income to the housing available in the marketplace, the study determines the dollar value of the affordable housing gap between their income and the cost of available housing. The maximum legally justified linkage fee is the rate per square footage to close this affordability gap. The feasible linkage fee rate, which is a lower rate, is the actual set rate and is designed to raise substantial revenues but not impede developments.

Courts have upheld linkage fees when there is a reasonable nexus between the fees and the affordable housing costs from new development incurred by a city. Clark Richards, a prominent Austin attorney, has analyzed Texas law and has concluded a linkage fee is allowed under state law and is constitutional when based on a valid, reasonable nexus study.⁴⁶ Fees in the United States typically range from \$1 to \$6 per square foot on commercial and/or residential new construction. In some high-cost cities, the fees are much higher.⁴⁷

Because an affordable housing linkage fee is applied broadly to all commercial and/or residential property, it can raise substantially greater affordable housing resources at the same fee rate than density bonus programs. This is because linkage fees are mandatory and apply throughout a city to all new commercial and/or residential construction. Density bonus programs, on the other hand, are voluntary, available in only certain areas, and their bonus incentives are often not suitable or profitable for particular developments.⁴⁸ With a much broader-based fee, the linkage fee rate can be kept lower than the density bonus fee (or the costs of the onsite units) on new construction. This helps ensure that the fee does not impede new developments. Thus, according to Cornerstone, Seattle's linkage fees per square foot "would be lower than the current Inclusion Zoning Fee in Lieu", and yet "Seattle might be able to generate significantly more total revenue.⁴⁹

An affordable housing linkage fee also provides more flexibility than onsite affordable unit requirements. Required onsite units are located wherever developers want their market developments, not where the demand for low income housing exists. The onsite units fit the needs of the development, which often results in the construction of efficiency units that are not suitable for families. With a linkage fee, the development pays a fee, and the city can use

⁴⁵ Austin City Council Resolution No. 20160616-035 (June 16, 2016)

⁴⁶ Clark Richards, Affordable Housing Linkage Fees Under Texas Law (June 7, 2016 on file with author)

⁴⁷ Overview of Commercial and Residential Linkage Fee Programs in US and Colorado (Denver Office of Economic Development January 2016);

⁴⁸ Cornerstone Partnership, Policy Options for Refining Seattle Incentive Zoning Program, pp. 21-25

⁴⁹ Cornerstone Partnership, Policy Options for Refining Seattle Incentive Zoning Program, p. 25

the funds to purchase and preserve the types of units (larger for families), for residents with the greatest need (low income), in the areas of town that are underserved.⁵⁰

C. How A Linkage Fee Program Could Work in Austin. In Austin in 2015, a \$2 per square foot fee on all new commercial and residential construction would have generated \$60 million. (There was approximately 30 million square feet in new construction in Austin in 2015: approximately 15 million square feet in commercial new construction and 15 million square feet in new residential construction).⁵¹ The funds could be directed to the Austin's low-income affordable housing priorities.

D. Advantages to Austin of Having a Linkage Fee Programs. In addition to raising substantial sums to seriously address Austin's low-income affordable housing crisis, linkage fees have these advantages:

1) Developers have certainty as to the cost to them of providing affordable housing, as opposed to the uncertainty of density bonus negotiations.

2) Linkage fees spread the cost of affordable housing fairly across all types of new construction, including commercial and retail, as opposed to density bonus programs, which are applied only to a limited number of developments.

- 3) The linkage fee is broad-based, which allows a lower rate to generate larger revenue.
- 4) New residents pay for the costs of affordable housing caused by their moving to the city.
- 5) Linkage fee programs are much simpler to administer than density bonus programs.

6) Planning decisions are based on best planning principles, and are not distorted by the City's need for affordable housing.

7) The City has much greater control over the housing size, the depth of affordability, and the length of affordability.

⁵⁰ Cornerstone Partnership, Policy Options for Refining Seattle Incentive Zoning Program, pp. 21-25

⁵¹ Ed Wendler, Jr., Analysis of Austin Commercial and Residential Construction by Square Footage in 2015 (April 4, 2016) (based on 2015 City of Austin building permit records (chart on file with author).