ROOT POLICY RESEARCH

# MEMORANDUM

**Re:** EHA Financial Feasibility Analysis: Updates 2022

**Date:** January 27, 2022

This memo supplements the EHA Financial Feasibility Report with additional analysis related to the City's draft policy proposal.

Figure 1 calculates project impacts of implementing the proposed linkage fees across prototypes in typical submarkets. This analysis replicates that of Figure II-5 of the feasibility report, which examined impacts of the maximum feasible fees. Instead of max feasible fees, Figure 1 (below) focuses on the project impacts of proposed linkage fees. Impacts are illustrated through percent change in key total development cost, project margin (on for-sale residential), and annual net cash flow (on commercial) resulting from the higher linkage fee from current fee levels.

**Figure 1. Project Impacts of Proposed Linkage in Typical Submarket**

| Prototype | Proposed Linkage Fee, Typical Submarket (at full phase-in) | Percent Change from Current to Proposed: Total development cost | Percent Change from Current to Proposed: Project Margin or Annual net cash flow |
|---|---|---|---|
| **For-Sale Residential, Units 1,600 SF or Less** | | | Project Margin |
| Single Unit Infill | $4 / SF | 1.3% | -10.1% |
| Townhomes | $4 / SF | 0.9% | -8.0% |
| **For-Sale Residential, Units > 1,600 SF** | | | Project Margin |
| Single Unit Infill | $7 / SF | 2.4% | -19.2% |
| Townhomes | $7 / SF | 2.1% | -18.0% |
| **Office** | | | Net Cash Flow |
| 3-Story Office | $6 / SF | 1.4% | -2.9% |
| 5-Story Office | $6 / SF | 1.1% | -2.5% |
| 8-Story Office | $6 / SF | 1.0% | -2.2% |
| 12-Story Office | $6 / SF | 0.9% | -2.0% |
| 16-Story Office | $6 / SF | 0.9% | -2.0% |
| **Other Commercial** | | | |
| 4-Story Hotel | $6 / SF | 1.0% | -1.0% |
| 12-Story Hotel | $6 / SF | 0.8% | -0.9% |
| 1-Story Retail | $6 / SF | 1.3% | -2.8% |
| 1-Story Warehouse | $4 / SF | 1.8% | -3.8% |

Note:

Total development cost includes land cost. Project margin is Sales Revenue minus marketing costs and total development costs. Annual net cash flow is NOI minus annual debt service.

Source:

Root Policy Research.

**A note about market adjustments to affordability requirements:**
As with all regulatory and market-driven changes, local development economics would likely to adjust should linkage fees increase or an affordability requirement be imposed via inclusionary housing. These adjustments commonly include shifts in land values as well as construction labor costs, development amenities or finish level, unit size/configuration, market-rate rents, and/or investor expectations.

The most likely scenario is some combination of the above market adjustments. The reason for this is that in reality, asking rents are not set only as a function of costs; they depend on a variety of market factors exogenous of the actual development and fluctuate monthly based on vacancy rates, demographic trends, competition, renter demographics, etc.

However, f**or the sake of a theoretical analysis, the following discussion focuses strictly on rent adjustments** that could fully absorb the entire cost of proposed policy changes. It is important to note that the feasibility analysis does show the increased linkage fees (and inclusionary policies) are feasible without a rental adjustment.

Figure 2 shows the percentage increase in rents that would allow developers to absorb the full increase in linkage fees with zero impact to output metrics (ROC, COC, IRR, and ROE). Note that such increases also lead to slightly higher annual net cash flows. Commercial prototypes (office, hotel, retail) can fully offset the increased linkage fees with a less than 1% increase in rental rates and warehouse/industrial prototypes can fully offset the increased linkage fees with a 1.45% increase in rental rates.

Keep in mind that linkage fees are one-time fees whereas rent is a recurring revenue item; thus it isn’t simply a one-to-one increase. In other words, a $5 (one-time) linkage fee is not comparable to a $5 increase in recurring rent.

**Figure 2.**
**Rent Increases to Fully Offset Proposed Linkage Fees**

| | OFFICE | | | | | OTHER COMMERCIAL | | | |
|---|---|---|---|---|---|---|---|---|---|
| | 3-Story Office | 5-Story Office | 8-Story Office | 12-Story Office | 16-Story Office | 4-Story Hotel | 12-Story Hotel | 1-Story Retail | 1-Story Warehouse |
| **Current Linkage** | $1.83 psf | $1.83 psf | $1.83 psf | $1.83 psf | $1.83 psf | $1.83 psf | $1.83 psf | $1.83 psf | $0.43 psf |
| Net Cash Flow | $205,243 | $451,461 | $1,246,900 | $1,534,126 | $2,390,690 | $1,207,082 | $2,326,666 | $68,809 | $412,455 |
| Return on Cost | 6.07% | 5.97% | 5.92% | 5.97% | 5.98% | 7.96% | 7.86% | 6.04% | 6.06% |
| Cash on Cash | 6.63% | 6.28% | 6.12% | 6.28% | 6.34% | 12.94% | 12.59% | 6.51% | 6.59% |
| IRR | 10.96% | 10.11% | 9.74% | 10.11% | 10.26% | 17.15% | 16.51% | 12.03% | 12.23% |
| ROE (yr 5) | 9.03% | 8.38% | 8.11% | 8.38% | 8.49% | 26.82% | 25.36% | 8.80% | 8.95% |
| **Proposed Linkage** | $6 psf | $6 psf | $6 psf | $6 psf | $6 psf | $6 psf | $6 psf | $6 psf | $4 psf |
| *Rent Increase:* | *0.85%* | *0.85%* | *0.85%* | *0.85%* | *0.85%* | *0.95%* | *0.95%* | *0.95%* | *1.45%* |
| Net Cash Flow | $208,075 | $458,387 | $1,266,371 | $1,558,921 | $2,429,800 | $1,214,327 | $2,345,566 | $70,231 | $420,101 |
| Return on Cost | 6.07% | 5.97% | 5.93% | 5.98% | 6.00% | 7.95% | 7.86% | 6.05% | 6.06% |
| Cash on Cash | 6.63% | 6.30% | 6.16% | 6.32% | 6.38% | 12.89% | 12.59% | 6.55% | 6.59% |
| IRR | 10.95% | 10.17% | 9.82% | 10.21% | 10.36% | 17.06% | 16.50% | 12.14% | 12.23% |
| ROE (yr 5) | 9.02% | 8.42% | 8.17% | 8.45% | 8.57% | 26.62% | 25.35% | 8.88% | 8.96% |
| **Difference in outcomes under proposed linkage with specified rent increase** | | | | | | | | | |
| Net Cash Flow | 1.4% | 1.5% | 1.6% | 1.6% | 1.6% | 0.6% | 0.8% | 2.1% | 1.9% |
| Return on Cost | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% |
| Cash on Cash | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% |
| IRR | 0.0% | 0.1% | 0.1% | 0.1% | 0.1% | -0.1% | 0.0% | 0.1% | 0.0% |
| ROE (yr 5) | 0.0% | 0.0% | 0.1% | 0.1% | 0.1% | -0.2% | 0.0% | 0.1% | 0.0% |

Note: Based on proformas in typical market areas.

Source: Root Policy Research.

Figure 3 shows the results of a similar analysis for multifamily rental prototypes. The analysis shows the rent increase that would allow developers in typical submarkets to fully offset the cost of a mandatory affordable requirement of 8% of units at 60% AMI. The analysis does not account for any offsets or incentives offered by the city for on-site build compliance (e.g., parking reduction, fee rebates, etc.) and therefore should be considered an upper bound estimate. Again, it is important to note that the feasibility analysis does show the proposed mandatory affordability requirements are feasible without a rental adjustment; however, we some developers are likely to seek a full offset of new costs in developments with market support for higher rents. Potential rent increases vary by prototype but all stay under 5% and in all but the highest prototypes represent less than a $100 increase.

To put these findings in context, the most recent Denver Metro Vacancy Report shows a 13% year-over-year rent increase from 2020 to 2021. In the six years leading up to the pandemic (2014-2020) year-over-year increases in rent in metro Denver ranged from 3% to 12%. In other words, a 5% increase in rents would be in line with typical year-over-year rent fluctuations.

## Figure 3. Rent Increases to Fully Offset Proposed Inclusionary Requirements

Note:

Based on proformas in typical market areas.

Source:

Root Policy Research.

| | RENTAL RESIDENTIAL | | | | | |
|---|---|---|---|---|---|---|
| | 3-Story | 5-Story | 8-Story | 12-Story | 16-Story | 20-Story |
| **Current Linkage** | $1.61 psf | $1.61 psf | $1.61 psf | $1.61 psf | $1.61 psf | $1.61 psf |
| Total Dev Cost | $20.5 M | $47.9 M | $77.6 M | $105.9 M | $124.2 M | $142.3 M |
| Net Cash Flow | $339,189 | $794,058 | $1,273,138 | $1,777,391 | $2,112,831 | $2,406,119 |
| Return on Cost | 5.7% | 5.7% | 5.7% | 5.8% | 5.8% | 5.8% |
| Cash on Cash | 5.5% | 5.5% | 5.5% | 5.6% | 5.7% | 5.6% |
| IRR | 12.5% | 12.6% | 12.5% | 12.8% | 13.0% | 12.9% |
| ROE (yr 5) | 7.0% | 7.1% | 7.0% | 7.2% | 7.3% | 7.3% |
| **Mandatory Inclusionary: 8% of units at 60% AMI** (assumes no other offsets/incentives) | | | | | | |
| *Rent Increase:* | *3.65%* | *3.80%* | *4.00%* | *4.15%* | *4.35%* | *4.40%* |
| Total Dev Cost | $20.4 M | $47.7 M | $77.2 M | $105.5 M | $123.7 M | $141.7 M |
| Net Cash Flow | $336,753 | $791,329 | $1,269,260 | $1,770,528 | $2,104,613 | $2,394,795 |
| Return on Cost | 5.7% | 5.7% | 5.7% | 5.8% | 5.8% | 5.8% |
| Cash on Cash | 5.5% | 5.5% | 5.5% | 5.6% | 5.7% | 5.6% |
| IRR | 12.6% | 12.7% | 12.6% | 12.8% | 13.0% | 12.9% |
| ROE (yr 5) | 7.0% | 7.1% | 7.0% | 7.2% | 7.3% | 7.3% |
| **Difference in outcomes under proposed inclusionary with specified rent increase** | | | | | | |
| Total Dev Cost | -0.6% | -0.5% | -0.5% | -0.4% | -0.4% | -0.4% |
| Net Cash Flow | -0.7% | -0.3% | -0.3% | -0.4% | -0.4% | -0.5% |
| Return on Cost | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% |
| Cash on Cash | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% |
| IRR | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% |
| ROE (yr 5) | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% |
| **Rent Detail** | | | | | | |
| Current market rents | $2,207 | $2,195 | $2,272 | $2,298 | $2,409 | $2,449 |
| Adjusted market rents | $2,287 | $2,278 | $2,363 | $2,393 | $2,514 | $2,556 |
| *Difference* | *$81* | *$83* | *$91* | *$95* | *$105* | *$108* |

Figure 4 shows price adjustments to market-rate for-sale units that would fully offset lost revenue of affordable units assuming a policy that mandates 8% of units affordable to 80 AMI. Since for-sale transactions are one-time revenues, the analysis simply spreads the price differential across the market-rate units. As shown, a 4%-6% increase on each market-rate unit would fully offset the lower price-point of affordable units.

## Figure 4. Price Increases to Fully Offset Proposed Inclusionary Requirements

Note:

Typical market area proformas.

Source:

Root Policy Research.

| | FOR-SALE RESIDENTIAL | | | |
|---|---|---|---|---|
| | Single Family Infill | Owner Townhomes | 5-Story Condo | 12-Story Condo |
| **Sales Prices per Unit** | | | | |
| Market-Rate Sales Price (per unit) | $865,000 | $683,000 | $628,000 | $695,000 |
| 80% AMI Sales Price (per unit) | $386,347 | $348,007 | $251,305 | $251,305 |
| **Premium on market-rate units to fully absorb price differential for 8% of units at 80% AMI** | | | | |
| Price increase ($) | $41,622 | $29,130 | $32,756 | $38,582 |
| Percent Price Increase | 5% | 4% | 5% | 6% |