

DATE: March 8, 2022
TO: Ose Akinlotan, City of Pittsburgh
FROM: Michelle Anderson, Tyler Bump, Mary Chase, James Kim, and Emily Picha
SUBJECT: Greater Hill District Housing Development Feasibility Analysis Summary

This interim document summarizes technical analysis that ECONorthwest completed to help the City of Pittsburgh evaluate potential strategies to include in the Greater Hill District Master Plan Update. The recommendations included in Section 4 were further developed in the Community Investment Strategy.

1 Background and Purpose

This memorandum summarizes the analysis that ECONorthwest completed of potential policy and program options related to affordable housing in the Hill District. The purpose of this analysis was to explore potential policy options that could help to create a supply of long-term affordable housing and advance goals of mixed-income development and community-level inclusion across the Hill District.

Our analysis considers changes to zoning standards alongside a potential inclusionary housing program. Community members in the Hill District have pointed to the need for permanently affordable housing as part of larger developments in the Hill District as a way to help stabilize the neighborhood and create places where housing is available for people of different incomes in the same building. Current incomes among Hill District residents and people who would like to return to the Hill District point to the need to focus on how the community can provide housing at a mix of income levels moving forward.

This analysis considers two types of rental housing:

- **Regulated Affordable Housing**, which is income or rent-restricted to ensure the housing is occupied by households earning a certain income. Regulations are set according to the types of funding used to develop the housing, such as the Low-Income Housing Tax Credit, or U.S. Housing and Urban Development (HUD) funding. Most rent-restricted affordable housing is restricted to be affordable to households earning under 60% MFI, but these restrictions vary. ECONorthwest's analysis evaluated programs for households earning between 30% AMI (\$26,200 annual income for a 4-person household HUD guidelines) to 80% AMI (\$66,400 annual income for a 4-person household using 2020 HUD guidelines).
- **Market-rate Housing** is nonregulated, nonsubsidized housing that is occupied by households with a range of incomes. The unit pricing depends on the condition and configuration of the unit. Market-rate apartment rents in the Hill District are generally affordable to those making around 80% AMI and above (\$66,400 annual income for a 4-person household using 2020 HUD guidelines).

The purpose of this memo is to outline how the City, developers, and other partners could help to deliver lower-cost housing. This work builds upon the existing conditions analysis that ECONorthwest completed in Task 1.2, the Opportunities and Constraints Memorandum. The next step will be to develop a set of recommended strategies that Hill District partners can consider in the action teams and ultimately be included as part of the Master Plan Update.

Recommendations (see page 17 for detailed findings and recommendations):

- Implement an **inclusionary housing policy** in the Hill District.
- Make **targeted changes to zoning requirements** (parking requirements, allowed uses, and density requirements) help make housing development possible.
- Expand the affordable **housing property tax abatement** to include other taxing districts
- Reduce **regulatory barriers to co-ops** and explore co-op/other creative housing funding strategies
- Explore new investment programs related to the Hill District's **vacant land and building stock**.

Housing Context from the Citywide Housing Needs Assessment

The City of Pittsburgh must address the following challenges to attain a healthier housing market that provides housing opportunities for a variety of lifestyles, incomes, and tenure.

Adapting to Accommodate Growth

Since 2016, Pittsburgh's reversal of a decades-long decline in total households indicates a change in the nature of the housing market. Along with an increase in the number of households, incomes have grown, outpacing rent increases for many Pittsburgh households. Driving this rise in households and incomes is the growth of the region and the 7,000 additional jobs in the City.

Pittsburgh's status as an attractive destination for young, educated renters has fueled the rise in multifamily rental construction and created new competition for housing. That construction has been concentrated in a small number of neighborhoods. To accommodate growth over the next decade, Pittsburgh needs a more diverse range of housing options built across a broader range of neighborhoods to accommodate growth and reduce competition for housing.

Fostering Neighborhood Reinvestment

The poor conditions of Pittsburgh's existing housing are not meeting residents' needs. The housing stock that has suffered from decades of underinvestment and neighborhoods filled with blighted housing are driving residents out of their homes and the City in search of safe, habitable housing. While the number of vacant properties is falling citywide for the first time since 1980, almost half of Pittsburgh neighborhoods still have 10% or more of their housing stock vacant.

Investments to improve housing quality have largely been limited to multifamily housing in a select few neighborhoods and a modest number of 'flips' of single-family homes. Pittsburgh needs to expand investment in existing homes while maintaining affordability.

Supporting Homeownership

Pittsburgh's massive decline in homeownership, triggered by the Great Recession, has stabilized since 2015 but has not improved to pre-Recession levels. The dream of homeownership remains elusive for most renters, as they struggle to afford it and compete with investors for the limited supply of move-in-ready housing.

Existing owners also continue to struggle to hang on to their homes, particularly Black homeowners. Pittsburgh has lost over 700 Black homeowner households since 2015, proportionally greater than the loss in Black renters.

To support homeownership, Pittsburgh will need to stabilize and protect existing owners and expand access to homeownership to a wider number of residents.

Protecting Vulnerable Renters

While conditions for low-income renters have in some instances improved since 2016, households earning less than 30% AMI still face a supply gap of 8,200 units and over 70% of these households are cost burdened.

Quality affordable housing options remain uncommon. Those that are available are heavily concentrated in neighborhoods with major issues. Many landlords refuse to accept Housing Choice Voucher holders, a program with a waitlist above 11,000. Pittsburgh will need to preserve existing affordable housing and add to it, as well as protect the rights of tenants to remain in their homes.

Source: [City of Pittsburgh Housing Needs Assessment](#) (2016) and Department of City Planning Staff

Analysis Framework

To inform potential regulatory and policy actions that the City and its partners could explore, our analysis seeks to answer the following questions:

1. What is the financial gap between what it costs to construct new housing and potential revenues, at different scales of development (e.g. townhomes, apartments) and at different prices?
2. Are there changes that the City could make to regulations, such as zoning standards, that could reduce the financial gap for new construction housing?
3. What is the impact on the financial gap from changes to financial incentives, such as a property tax abatement?
4. How would an inclusionary housing program impact the financial gap for new construction housing?
5. Could innovative solutions for ownership structures, such as cooperative ownership models, create affordable homeownership opportunities?
6. What is the financial gap for renovating existing housing in the Hill District?

2 Housing Needs in the Greater Hill District

The Opportunities and Constraints Report produced as part of the Plan Update provided a snapshot of housing conditions in the Hill District. As of 2021, the area is experiencing rising rents and home prices alongside falling vacancies. This activity is amplifying the risk for many of the neighborhood's most vulnerable residents that they might see a rent increase that they cannot afford, or that they might be physically displaced by new development.

Affordable Homeownership Opportunities

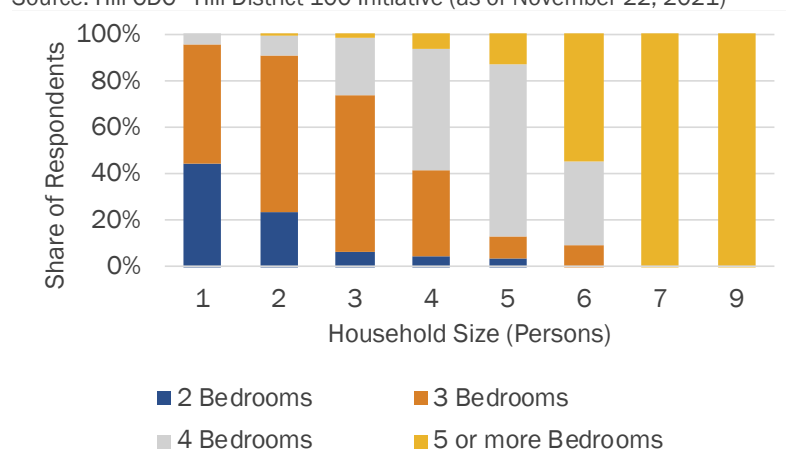
To help to stabilize the Greater Hill District's communities and provide an opportunity for intergenerational wealth building, the Hill CDC has embarked on an effort called the Hill District 100 to provide "relevant and meaningful education and support to potential home buyers to systematically grow the Hill District, increase wealth and transform the community."¹ As part of this work, the Hill CDC has worked hard to collect information on over 600 people who either live in the Hill District and would like to purchase a home or who formerly lived in the Hill and would like to return to the neighborhood as a homeowner. This section provides a summary of key findings from the survey, as of December 2021, about people who would like to own homes in the Hill District to better inform the Master Plan Update's strategies related to affordable homeownership.

Findings from Hill District 100 Initiative Survey

- **Household size:** 58% 1- or 2-person household. Only 8% more than 4 people.
- **Desired bedrooms:** 55% said they want 3-bedroom houses. 21% want fewer bedrooms. 24% want more bedrooms.
- **In general, smaller households prefer fewer bedrooms.** Illustrated in Exhibit 1.

Exhibit 1. Household Size and Desired Number of Bedrooms among Hill District 100 Respondents

Source: Hill CDC - Hill District 100 Initiative (as of November 22, 2021)



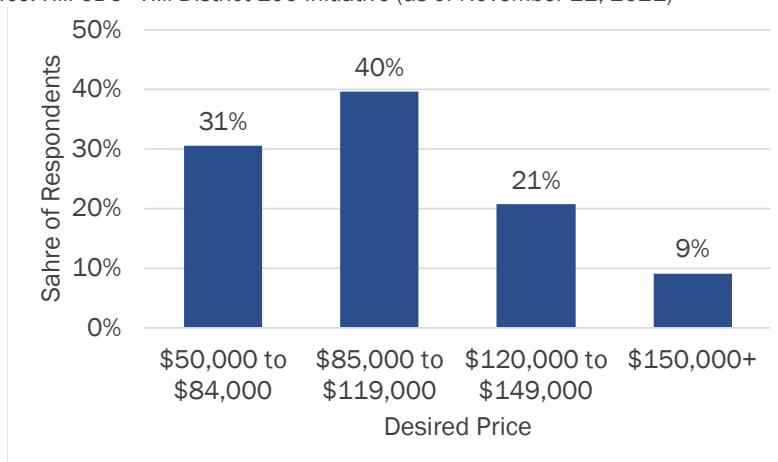
- **Marital status:** 83% of respondents are single, 17% are married.

¹ https://www.hilldistrict.org/sites/default/files/hd_100_flyer_0.pdf

- **First-time homebuyers:** 89% of respondents would be first-time homebuyers.
- **Incomes:** 59% of respondents reported earning less than \$40,000 per year, while 41% reported earning more.
- **Housing Assistance:** 23% of respondents receive Section 8 vouchers (under the federal Housing Choice Voucher Program) or other housing assistance through the Housing Authority of the City of Pittsburgh (HACP).
- **Willingness to pay for housing:** Most respondents (91%) want to pay less than \$150,000 for a house.

Exhibit 2. Willingness to Pay for a New Dwelling Unit among Hill District 100 Respondents

Source: Hill CDC - Hill District 100 Initiative (as of November 22, 2021)

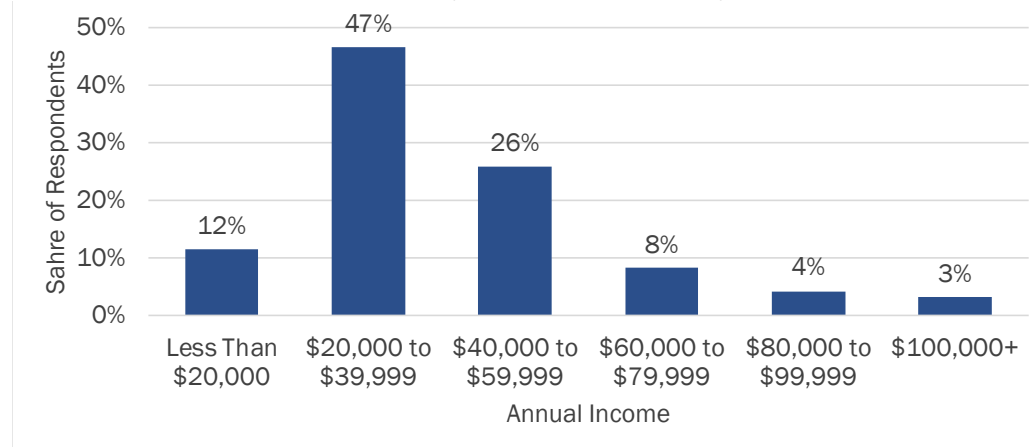


- **Maximum ability to afford housing:** A common metric for housing affordability is that a household should spend no more than 30% of its monthly income on housing costs. Depending on assumptions used, households that earn more than \$40,000 per year could afford more than \$150,000 for a new home.² The survey shows 41% of respondents earn more than \$40,000, but only 9% reported being willing to pay more than \$150,000. The discrepancy could be due to multiple reasons. First, there are other costs for lower-income households that could make it more difficult to spend 30% of income on housing costs. In addition, some respondents may not want to spend over \$150,000 on housing.

² Assumptions: 30-year mortgage at 4.0% interest rate mortgage with 5% down payment and \$4,000 in annual homeowner costs (e.g., property taxes, maintenance, etc.), 30% of income spent on housing costs.

Exhibit 3. Reported Annual Income of Hill District 100 Survey Respondents

Source: Hill CDC - Hill District 100 Initiative (as of November 22, 2021)



3 Financial Gap Analysis

In this section, we address the analysis framework questions about the development standards and housing programs that can support more affordable housing in the Hill District, both in new construction buildings and rehabilitated townhomes.

Methods

New Construction

We evaluated the development feasibility, and potential financial gap, of several development housing types (or *prototypes*) under various policy scenarios. Development feasibility analysis allows us to assess whether certain housing types would be built under current market conditions in Pittsburgh and test the impacts of various policy, program, and incentive changes.

We used a financial pro forma model to estimate the impact on the feasibility of development under the City of Pittsburgh's current policies, programs and incentives, and from hypothetical changes.

To conduct this analysis, ECONorthwest gathered 2021 real estate data inputs from multiple sources including CoStar, Redfin, RS Means, and interviews with local developers and real estate experts. Data include building program assumptions (e.g., unit mix, parking ratios, floor heights), operating assumptions (e.g., sales prices, rents, vacancy, operating costs), development cost assumptions (e.g., hard costs, soft costs), and valuation metrics (e.g., return on cost and yield thresholds). In addition, ECONorthwest interviewed five multifamily developers who work in and around the Hill District, along with several nonprofit developers. These developers provided information on development cost assumptions and revenue assumptions.

We modeled six prototypes that conform to Pittsburgh’s current development standards. The analysis also includes additional prototypes that do NOT conform to the City of Pittsburgh’s development standards to demonstrate the financial impact of such changes. The financial value of each prototype under a set of development standards is heavily dependent on the assumptions used in the pro forma analysis (listed in Appendix B and C). Thus, the most relevant insights from the analysis come from comparing the results for one prototype under each scenario of changes.

We first modeled the financial outcomes of new market-rate units that are likely to be sold or rented in Hill District in today’s market conditions. Then, ECONorthwest estimated the increase in the financial gap that would result from changes to affordable housing policy. Finally, ECONorthwest tested the impact of new programs that would mitigate the increased financial gap. This approach helps identify regulatory and program recommendations that would most effectively advance the City’s goals of creating a variety of housing types at different price points to meet the needs of current and future residents.

Housing Unit Renovation

The Hill District’s large inventory of vacant and underutilized land includes multiple vacant buildings in need of renovation as well as older structures that are functional but could greatly increase in value with renovation. Renovation refers to the restoration of buildings that have fallen into disrepair. This analysis focused on townhomes, as those were a more common form of housing in the Hill District that could be available for renovation.

In a survey of townhome sales from 2019 to 2021, ECONorthwest found examples of homes that were likely sold as opportunities for renovation or recently flipped properties in the Middle and Upper Hill, detailed in Appendix A. Almost all sales in the Lower Hill appeared to be newer homes that did not need significant renovation, based on their search engine description.

Townhomes were determined to be ‘opportunity’ investments if their descriptive overview explicitly mentioned investment opportunity (or similar language), or if there was a significant margin between the sales price and search engine estimate. ‘Flipped’ homes were identified by the explicit mention of recent renovation improvements, usually coupled with a close match with sales price and search engine estimate.

Assumptions

Zoning Standards

The majority of the district west of Herron Ave is zoned for **RM-M** (Multi-Unit Residential Moderate Density). East of Herron Ave the district is primarily **R2-L** (Two-Unit Residential Low Density). Commercial zoning through **LNC** (Local Neighborhood Commercial) is mostly along Wylie and Centre Avenues with the largest concentration from Jeron X. Grayson Community Center to the public library on Kirkpatrick St, which is roughly about 25 acres of commercial land. Additionally, there are specially planned districts that are labeled **RP** (residential planned) where development followed an approved plan on publicly owned property, typically many years ago. These zones, except RP, will be the focus of our analysis.

Exhibit 4 and Exhibit 5 summarize the zoning development standards and parking standards that informed our analysis. Please see the glossary in Appendix D for definitions.

Exhibit 4. Parking Standards in Pittsburgh's Hill District

Source: City of Pittsburgh Zoning Code

Use Type	Minimum Off-Street Automobile Spaces Required	Maximum Off-Street Automobile Spaces Allowed
Single-Unit, Detached	1 per unit	4 per unit
Single-Unit Attached	1 per unit	4 per unit
Two-Unit	1 per unit	2 per unit
Three-Unit	1 per unit	2 per unit
Multi-Unit	1 per unit	2 per unit

Exhibit 5. Zoning Development Standards in Pittsburgh's Hill District

Source: City of Pittsburgh Zoning Code.

https://library.municode.com/pa/pittsburgh/codes/code_of_ordinances?nodeId=PIZOCCO

Zone	Lot Size Minimum	Lot Size per unit	Max Lot Coverage	Height Limits	Floor Area Ratio
R1D-L	5,000 sf	3,000 sf	n/a	40 ft (3 stories)	n/a
R2-L	5,000 sf	3,000 sf	n/a	40 ft (3 stories)	n/a
RM-M	3,200 sf	1,800 sf	n/a	55 ft (4 stories)	n/a
RM-H	1,800 sf	750 sf	n/a	85 ft (9 stories)	n/a
RM-VH	1,200 sf	400 sf	n/a	No limit	n/a
EMI	Set by institutional master plan				
LNC	0	n/a	90%	45 ft (3 stories)	2:1
GT	0	n/a	n/a	75 ft (5 stories)	3:1
UI	0	n/a	n/a	60 ft (4 stories)	3:1 w/o a transit facility within 1,500 ft 4:1 w/ a transit facility with 1,500 ft
P	3,200 sf	n/a	n/a	40 ft (3 stories)	1:1
RP	Set by approved plan				
UPR-A	0	n/a	n/a	60 ft w/o bonus 180 ft w/ bonus	n/a
UPR-B	0	n/a	n/a	40 ft w/o bonus 70 ft w/ bonus	n/a

Exhibit 6. Zoning in the Hill District

Source: City of Pittsburgh

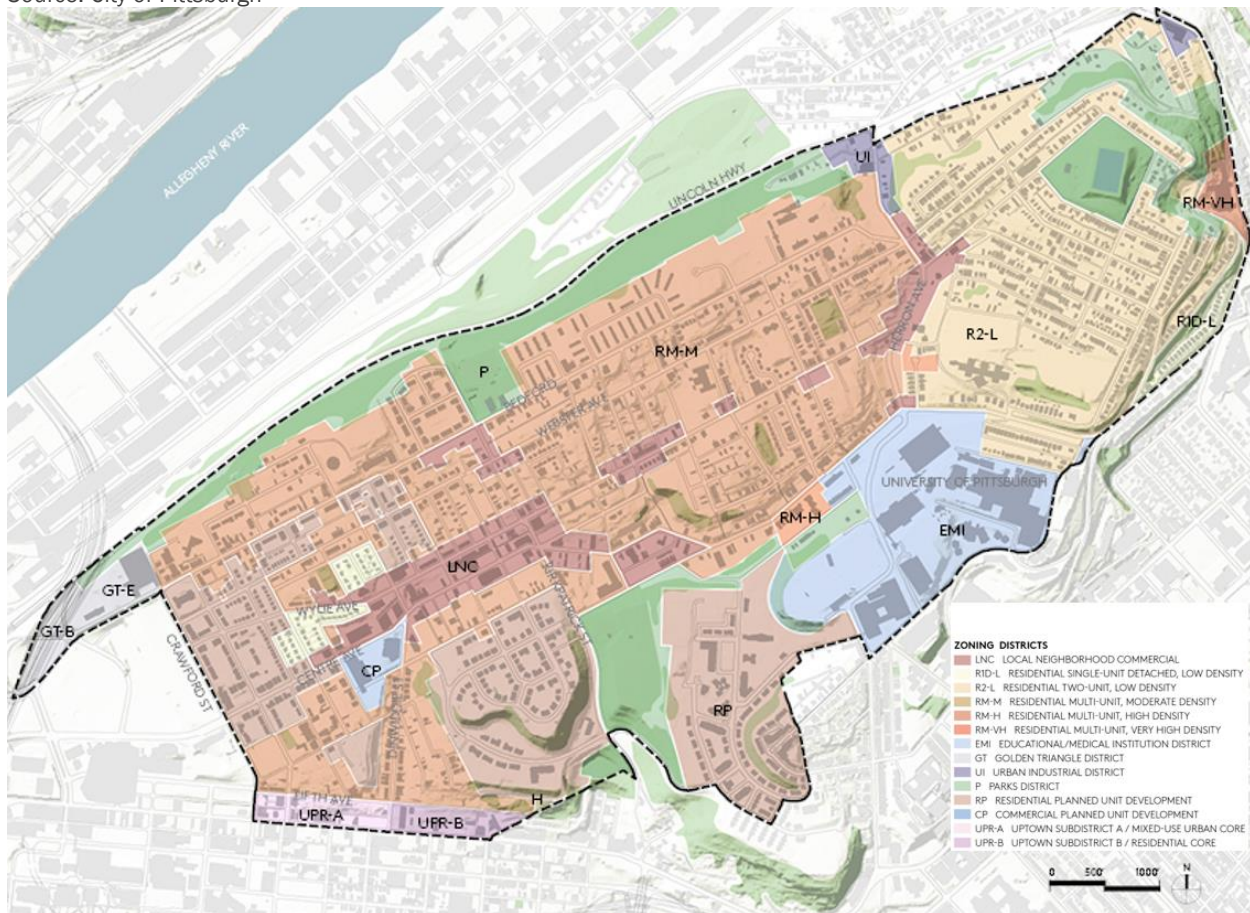


Exhibit 7. Zoning in the Hill District

Source: City of Pittsburgh

LAND COVER (ACRE)	PERCENTAGE	ZONING DISTRICT
291	33	RM-M RESIDENTIAL MULTI-UNIT, MODERATE DENSITY
145	16.6	R2-L RESIDENTIAL TWO-UNIT, LOW DENSITY
141	16	RP RESIDENTIAL PLANNED UNIT DEVELOPMENT
118	13.4	P PARKS DISTRICT
67	7.6	EMI EDUCATIONAL/MEDICAL INSTITUTION DISTRICT
54	6.2	LNC LOCAL NEIGHBORHOOD COMMERCIAL
15	1.7	R1D-L RESIDENTIAL SINGLE-UNIT DETACHED, LOW DENSITY
13	1.5	GT GOLDEN TRIANGLE DISTRICT
7	0.8	UI URBAN INDUSTRIAL DISTRICT
7	0.8	UPR-A UPTOWN SUBDISTRICT A / MIXED-USE URBAN CORE
6	0.7	UPR-B UPTOWN SUBDISTRICT B / RESIDENTIAL CORE
5	0.6	RM-H RESIDENTIAL MULTI-UNIT, HIGH DENSITY
5	0.6	CP COMMERCIAL PLANNED UNIT DEVELOPMENT
5	0.5	RM-VH RESIDENTIAL MULTI-UNIT, VERY HIGH DENSITY
TOTAL: 879 ACRE	100%	

Development Cost Assumptions

Exhibit 8 provides an overview of the cost assumptions ECONorthwest used in the analysis.

Exhibit 8. Key Development Cost Assumptions for New Construction (Per Unit) (2021)

Source: Developer interviews conducted by ECONorthwest in November and December 2021.

Prototype	Hard Costs	Soft Costs	Total Development Costs
Duplex	\$248,000	\$105,000	\$353,000
Townhouse	\$235,000	\$101,000	\$336,000
Triplex	\$161,000	\$76,000	\$237,000
6-plex	\$151,000	\$73,000	\$224,000
3-story apartment	\$168,000	\$73,000	\$241,000
4-story apartment	\$161,000	\$71,000	\$232,000

Notes: Soft costs include A/E, permitting, financing, lease up, design review, etc.

Prototypes

Informed by the zoning standards mentioned above, ECONorthwest chose a set of four prototypes for residential development and selected unit characteristics (e.g., number of bedrooms, unit size, parking) based on recent developments in Pittsburgh, likely demand in the Hill District, and Hill District 100 Survey Results. All prototypes are based on developments that could be priced at low price points relative to the rest of Pittsburgh to support the community goal of stabilizing households and bringing people back to the Hill District. The multifamily apartment prototypes include ground floor retail to align with the Hill District's goal to support investments in small businesses and create economic vitality. The prototypes are shown in Exhibit 9.

Exhibit 9. Development Prototypes Analyzed (currently allowed by zoning)

Source: ECONorthwest

Prototype	Relevant Zone	Tenure	Average Unit Size (Bedrooms)	Parking	Other Uses	Price
Side-by-side duplex / townhouse	R2L	Ownership	1,700 sq. ft. (3 bedrooms)	1-car garage per unit	Large private yard	\$363,000 per unit (\$213 per sq. ft.)
Four townhouses	RM-M	Ownership	1,700 sq. ft. (3 bedrooms)	1-car garage per unit	Small private yard	\$355,000 per unit (\$209 per sq. ft.)
Triplex	RM-M	Rental	862 sq. ft. (2 bedrooms)	1 surface parking stall per unit	Shared small yard	\$1,530 per month
Three-story multifamily	LNC	Rental	697 sq. ft. (1 bedroom)	1 surface parking stall per unit	Ground floor retail	\$1,300 per month

We also analyzed two additional residential developments that were similar to a couple of the four prototypes above but would require slight modifications to the zoning code to be physically feasible. These prototypes were also informed by developments in other cities where the market demand and regulations have resulted in financially feasible development.

Six-plex rentals represent slightly more dense development type than triplex rentals and will require a change in the parking standards. The four-story multifamily development is similar to the three-story multifamily building but exceeds what is currently allowed in the LNC zone.

Exhibit 10. Additional Development Prototypes Analyzed (not currently allowed by zoning)

Source: ECONorthwest

Prototype	Relevant Zone	Tenure	Average Unit Size (Bedrooms)	Parking	Other Uses	Price
Six-plex	RM-M (with changes)	Rental / Co-op ownership	862 sq. ft. (2 bedrooms)	0.5 surface parking stall per unit	Shared small yard	\$1,500 per month
Four-story multifamily	LNC (with changes)	Rental	697 sq. ft. (1 bedroom)	0.5 surface parking stall per unit	Ground floor retail	\$1,300 per month

Cooperative Units

Community members in the Hill District are interested in exploring innovative models of homeownership. While there are thousands of co-ops owned throughout the United States, there are few developers building new co-ops. However, ECONorthwest has seen co-op ownership units receiving a resurgence of interest as one solution to addressing the lack of affordable homeownership units.

What is a coop?

A housing cooperative is, along with condominiums, one of two legal structures available to allow resident-ownership of attached, multifamily housing. With a condo, an owner owns the airspace within a specific dwelling unit and owns a share in the condo association which owns the common space and land. In a co-op, an owner owns a share in the cooperative, which owns the entire property. Co-op owners are entitled to a proprietary lease, allowing them to live in one of the units. Combined, these costs are often lower than the median monthly rent in the area because co-ops are operated at cost, without a landlord profiting from the revenue.

How can you make coops affordable?

When it comes to creating affordable homeownership through middle housing, co-ops make more sense because of their low setup cost (relative to condos), and the lessened need for purchase financing. Limited-equity cooperatives (LECs) are a form of “shared equity” homeownership that balances an owner’s equity appreciation with permanent affordability of the home for the community. LECs offer homeownership to people who would otherwise need to rent, providing them with the benefit of fixed housing costs and eliminating the risks of rent escalation and geographic displacement.

LECs typically leverage a one-time use of public subsidy to enable permanently affordable homeownership units. The LEC bylaws limit the price appreciation of shares, often to a fixed three to five percent per year. This maintains share price affordability over time to create a permanent stock of affordable housing, and thus the “sharing” of equity for the benefit of future

residents. To ensure the permanence of affordability, LECs are sometimes paired with a Community Land Trust, which can prevent the co-op from changing its bylaws to allow an unregulated share price.

Modeling Coops

To evaluate how feasibility compares to co-op development types, ECONorthwest modeled the six-plex prototype in a cooperative ownership format that is similar to new construction co-op developments in other cities.

Like other new construction developments, co-ops require multiple sources of funding like a mortgage, equity investors, and the share price that owners pay (similar to a down payment). Precedent examples of affordable, new construction, cooperative buildings have also incorporated local grants (or subsidies) and sourced the equity component from social investors so that it had lower return requirements. Funding for an affordable cooperative development would be a partnership between private, public, and philanthropic money. ECONorthwest, therefore, evaluated the financial gap, on a per unit basis, for different depths of affordability. Exhibit 11 provides an overview of the assumptions ECONorthwest made for the co-op development

Exhibit 11. Co-Op Prototype Assumptions

Source: ECONorthwest

Assumption	Value	Notes
Prototype	6-plex shown in Exhibit 10	We retained all assumptions from the six-plex prototype
Funding	Mortgage @ 5.5% interest Social investor equity @ 3.5% interest Subsidies	The mortgage would have the “highest cost” of money and the social investor equity being “lower cost” money, with subsidies being essentially “free money.”
Share price per unit	\$5,000	For modeling simplicity, we assumed a consistent share price per unit of \$5,000 – in practice, the required share price would likely increase for market-rate units and decrease for affordable units.
Monthly housing cost	Variable, depending on affordability depth (50% AMI to 100% AMI)	

Programs Evaluated

We evaluated inclusionary zoning and tax abatement programs to see how these tools could create more affordable housing and prevent displacement of low-income households. They are designed to do this by either regulating or incentivizing developers to provide affordable units. ECONorthwest evaluated both as they have been employed in Pittsburgh, either in specific neighborhoods or citywide.

Yet another way for the City of Pittsburgh to impact development feasibility is by allowing different uses that increase the development value of land. More households can reside on the

same plot of land if the City allows taller buildings, more densely built housing, or smaller off-street parking requirements. Even when there is an abundance of land, more dense forms of housing are more financially feasible because they reduce the cost of services for each unit. For example, costs related to utility lines and maintenance of common areas can be spread out among more units.

Inclusionary Zoning

Inclusionary zoning is a tool that requires that new developments incorporate affordable units within designated areas. It is often used in areas where housing costs are quickly rising. The City of Pittsburgh piloted an Inclusionary Housing Interim Planning Overlay District (IPOD-6) in Lawrenceville in 2019 to mitigate the effects of increasing real estate pressure on low-income households.³ This ordinance was aimed at reducing displacement in the neighborhood by enacting a set of requirements for housing developers to reserve affordable units at different levels of area median income (AMI).⁴ From 2019 to 2021, the program in Lawrenceville produced 40 new affordable units.⁵ The City made the Lawrenceville program permanent in 2021 and is considering extending it to adjacent neighborhoods of Polish Hill and Bloomfield.⁶ Key details of this ordinance are detailed in Exhibit 11.

Exhibit 12. IPOD-6 Inclusionary Zoning Overlay Requirements

Source: City of Pittsburgh

IZ Requirements	IPOD-6
Geographies	2019: Temporary measure established in Lawrenceville 2021: IPOD-6 made permanent in Lawrenceville 2021-2: Exploring expansion of the program to Polish Hill, Bloomfield
Applicable Development Size	20+ units (new or significantly renovated)
Rental Units	10% affordable at or below 50% AMI
For-Sale Units	10% affordable at or below 80% AMI
Off-site Development	Must be within ¼ mile AND increase to 12% affordable units OR Contribute \$200k per affordable unit to another developer
Duration of Requirement	35 years

Our conversations with City officials and community members have revealed that there may be broad support for a citywide expansion of the inclusionary zoning program. While implementation of such legislation remains to be seen, it is still more likely that some form of inclusionary zoning program resembling the existing program will soon be instituted in lower-income neighborhoods such as the Hill District.

³ Department of City Planning, “Inclusionary Zoning Overlay District (IZ-O),” City of Pittsburgh, n.d., <https://pittsburghpa.gov/dcp/izod>.

⁴ In 2021, the MFI for the City of Pittsburgh was \$84,800 for a family four and \$67,840 for a family of 2.

⁵ Charlie Wolfson, “Inclusionary Zoning Extended in Lawrenceville as Pittsburgh Mayoral Shift Looms,” PublicSource, June 16, 2021, <https://www.publicsource.org/lawrenceville-inclusionary-zoning-gainey-pittsburgh-peduto-affordable-housing/>.

⁶ Ibid.

In our development feasibility models, ECONorthwest considered the financial gap that could exist with various versions of potential inclusionary zoning programs that would require at least 10% of units in new multifamily buildings to be set aside for households earning 50% of MFI or less. The financial goal of new policies could be to mitigate the impact of inclusionary zoning on development feasibility.

Tax Abatements

Tax abatements can encourage developers to provide more affordable housing units by offering cost reductions or credits for annual property taxes. In 2020, Pittsburgh combined several real estate tax abatement programs that incented affordable housing in new developments.⁷ These are now available throughout the City (not concentrated in a particular neighborhood) as options to reduce costs in return for providing affordable units. The programs as of 2021 are detailed in Exhibit 13.

Exhibit 13. Tax Abatement Programs in Pittsburgh (2021)

Source: City of Pittsburgh, Department of Finance

Project Type	Abatement Type	Standard Abatement	Enhanced Abatement
Owner-occupied residential/for-sale development	Assessment reduction	3-year assessment reduction Up to \$175,000 per year	10-year assessment reduction up to \$250,000 per year if: A residential for-sale or owner-occupied property is in a CDBG-eligible location OR A multi-unit for-sale or owner-occupied development includes at least 10% of units affordable to and occupied by households at or below 80% AMI OR A for-sale or owner-occupied property is located in the Lower Hill District
Commercial residential (rental or otherwise not occupied by the owner)	Tax credit	3-year tax credit Up to \$125,000 per year	10-year tax credit up to \$250,000 per year if: A residential property not to be occupied by the property owner includes at least 10% of its units affordable to and occupied by households at 50% AMI OR A residential property not to be occupied by the property owner includes at least 60% of its units affordable to and occupied by households at 80% AMI OR A residential property not to be occupied by the property owner is located in the Lower Hill District
Industrial, commercial, or other business structures	Tax credit	3-year tax credit Up to \$125,000 per year	10-year tax credit up to \$250,000 per year if the project creates at least 50 full-time jobs

⁷ Department of Finance, "Real Estate Forms," City of Pittsburgh, 2020, <https://pittsburghpa.gov/finance/real-estate-forms>.

A limitation of the current tax abatement program is that it exempts only City of Pittsburgh property tax. Residents in the Hill District are subject to property taxes from multiple jurisdictions: City of Pittsburgh, School District of Pittsburgh, Allegheny County, and Carnegie Library. Although each property tax program has a different amount for homestead exemption, City of Pittsburgh property tax has a tax rate of 0.806% and represents about a third of all property taxes. The Pittsburgh School District property tax rate is 0.995%, making up the largest portion of property taxes. Allegheny County's property tax rate is 0.473% and Carnegie Library's property tax rate is 0.025%.

To demonstrate the impact that property tax abatements can have on development, ECONorthwest tested the effects of expanding the tax abatement program to all property taxes. Namely, ECONorthwest applied a 10-year assessment reduction of up to \$250,000 per year to developments that participate, either voluntarily or mandatorily, in the inclusionary zoning program mentioned above.

4 Findings and Recommendations

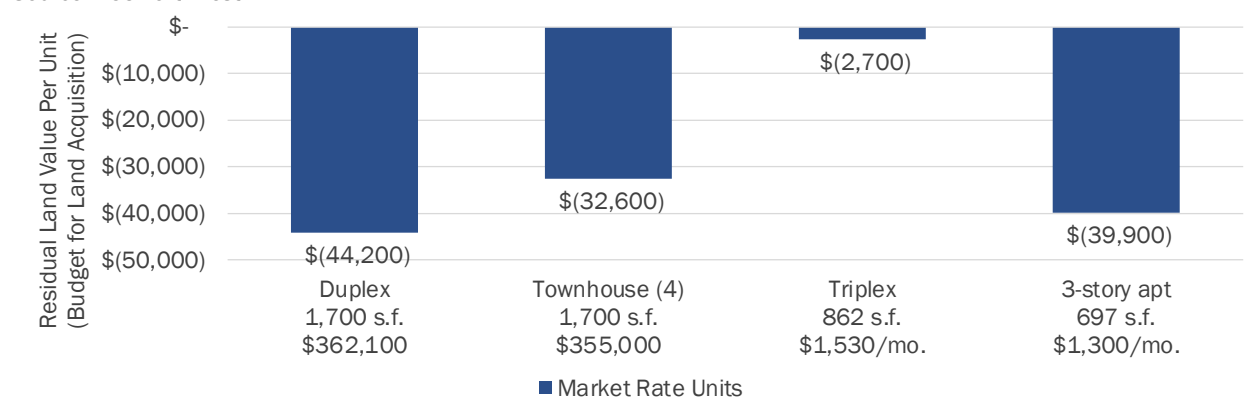
Our analysis points to a set of regulatory changes and programs that could help to make new housing pencil in the Hill District. The City of Pittsburgh can encourage housing development in the Hill District by allowing housing types that are more financially feasible. Changes in development standards can help to create development opportunities if inclusionary zoning becomes applicable to the Hill District.

There is a financial gap for all new construction housing, given sales prices and rents in the Hill District.

All forms of new construction housing have a financial feasibility gap given current sales prices and rents in the Hill District. The size of the financial gap varies depending on the type of housing structure as both the costs of construction and revenue vary by type of housing – ranging from being close to financially feasible with a \$2,700 gap per unit to being further from financially feasible at \$44,200 per unit. The gap is due to lower prices and rents that a new construction unit in the Hill District could reasonably achieve. Developers are building elsewhere in Pittsburgh because those units will sell or rent at higher prices.

Exhibit 14. Feasibility Gaps for New Construction – Market-Rate Units Allowed by Zoning Code

Source: ECONorthwest

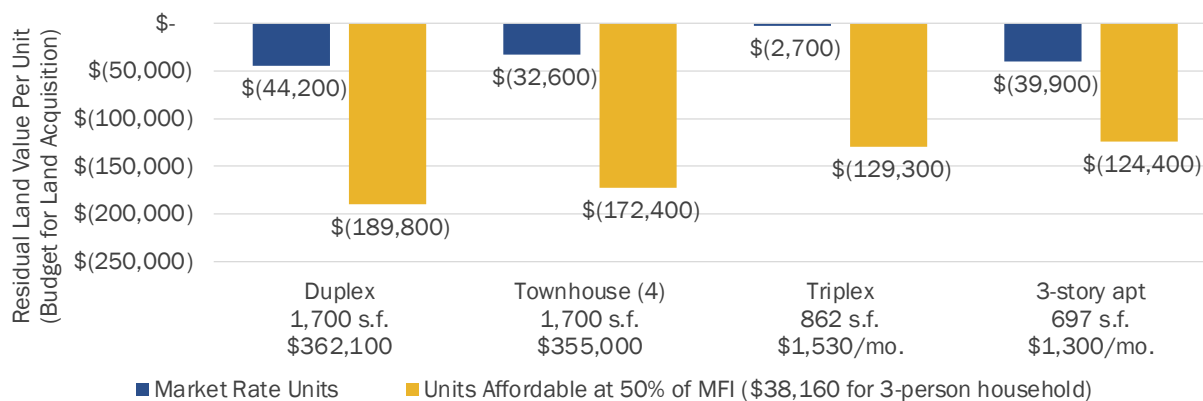


Increasing affordability of units also increases the feasibility gaps for all unit types.

Financial gaps are greater for units that are affordable. The financial gap increases for all unit types, but the difference between market-rate and affordable units is the smallest for multifamily housing. The financial gap increases to \$170,000 to \$190,000 per unit for ownership units, while it increases to between \$120,000 and \$130,000 per unit for multifamily rental units.

Exhibit 15. Feasibility Gaps for New Construction – Comparing Market-Rate Units to Affordable Units, Hill District Prototypes (50% AMI)

Source: ECONorthwest



An inclusionary zoning requirement would increase the financial gap for new construction housing.

The Hill District community is interested in seeing inclusionary zoning implemented in the Hill District. Various stakeholders expressed a range of potential policy options. These ranged from applying the existing IZ overlay requirement that new developments would need to set aside 10% of units to be affordable for households making 50% of median family income (MFI) to targeting additional affordability restrictions such as 20% of units to affordable at 50% MFI. An inclusionary policy is only effective if developers can feasibly build new market-rate housing, which is difficult given current market conditions in the Hill District.

To even the playing field, the City could provide incentives that would offset the added cost of the affordable units in the development, such as through a property tax abatement or direct subsidy. It is also important to note that the IZ overlay is currently structured to be applied evenly (at 10% of units at 50% MFI) across different neighborhoods and that creating alternative IZ structures across different geographies can have unintended market consequences and increase the administrative burden and complexity.

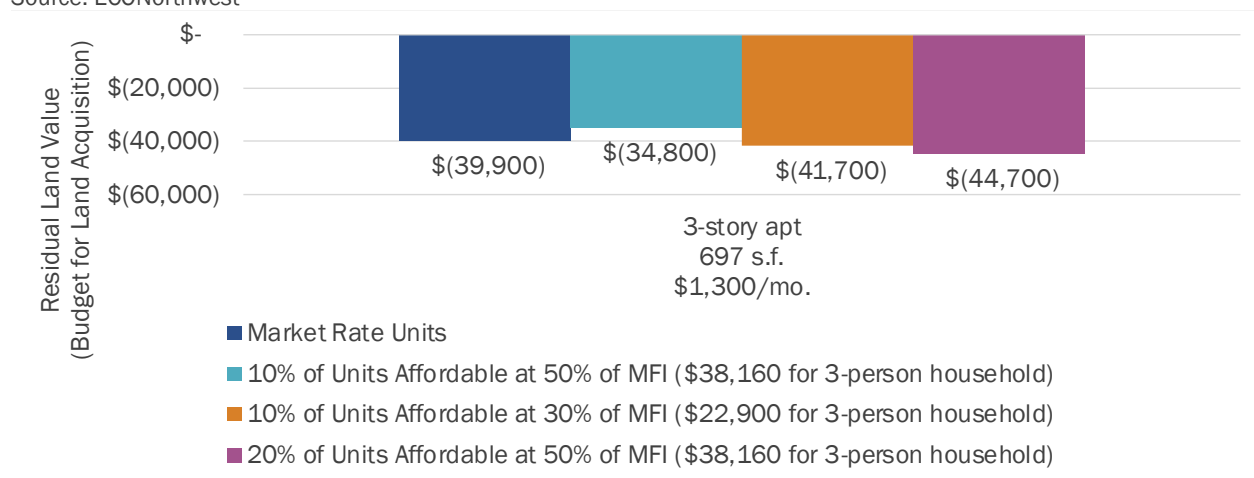
We evaluated the impact of various inclusionary zoning requirements that would result in a mix of market-rate and affordable units in the same building. ECONorthwest focused on the 3-story multifamily prototype since the other prototypes are likely to be small enough developments to be exempt from inclusionary zoning requirements. It is also worth noting that the findings in this analysis for 3-story development could also broadly apply to 4-story development when kept within the same wood frame construction type. However, the City

would need to analyze any additional density allowances that would require a more intense construction type (e.g., wood over a concrete podium in a 5-story development) to understand the implications of an IZ policy on more expensive construction types.

The tax abatement program would be sufficient to offset the impact of an IZ program with the requirement of 10% of units at 50% AMI. The gap for a market-rate unit in a 3-story apartment would be close to \$40,000 and the gap for a unit reserved at 50% of MFI would be much greater. However, blending the two rents (90% market rate and 10% affordable), as would happen under an IZ program, and including the City of Pittsburgh’s property tax abatement that becomes available for inclusionary developments result in a slightly reduced financial gap per unit which offsets the impact of the IZ program.

Exhibit 16. Feasibility Gaps with Alternative Inclusionary Zoning Programs, 3-Story Apartment with Tax Abatement

Source: ECONorthwest



As the affordability requirements increase – either the depth of affordability deepens, or the required percentage of affordable units increases – the value of the tax abatement is no longer able to balance out the effects of an IZ program, and the financial gap per unit increases. This analysis indicates that the property tax abatement can be a useful tool depending on the depth of MFI required to access the program.

Recommendation: Implement an inclusionary housing policy in the Hill District.

- Explore how different policy parameters like the share of units and the depth of affordability impact feasibility. Our analysis found that requiring a share of affordable units would impact feasibility, but there are instances where it can add affordable units.

Changes to regulations could reduce the financial gap for new construction housing.

We tested the impact of allowing four-story apartment buildings (with a height increase by one floor and 10 feet, and a FAR increase of 0.5) and reducing parking to 0.5 stalls per unit. This decreased the financial gap by \$6,900 per unit relative to three-story apartments with one parking stall per unit.

We also tested allowing denser “middle housing” types in the Hill District by looking at the feasibility of a six-plex with a parking reduction to 0.5 stalls per unit. This decreased the feasibility gap by \$2,600 per unit (relative to a triplex with 1 stall per unit).

We analyzed whether changing the zoning code to allow for additional, denser housing forms would decrease the financial gap. In zones where a triplex development might be allowed, ECONorthwest looked at reducing the parking standards to fit a six-plex. Reducing onsite parking requirements can help to increase feasibility, likely without a large impact on the community given that the Bedford Connects plan showed that only ~50% of residents of affordable housing operated by the Housing Authority owned cars. ECONorthwest first evaluated the feasibility with the minimum parking requirement reduced to 0.5 stalls per unit. We then analyzed the feasibility with no minimum parking requirement in exchange for one affordable unit. Additionally, we looked at increasing the height in zones that allow multifamily as well as reducing the parking standards to 0.5 stalls per unit, which would allow for a building to be an additional floor taller on a similarly sized lot for a 3-story building.

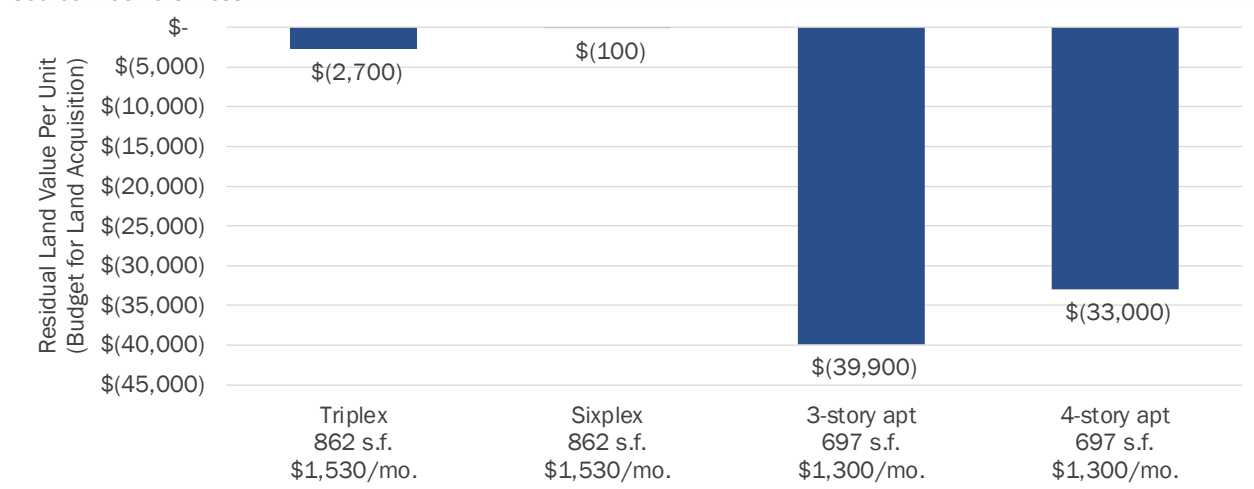
Six-Plex Allowance

Reducing the minimum lot size per unit to 750 sq. ft. and reducing the off-street parking requirement from 1 stall per unit to 0.5 stalls per unit for a six-plex development improved the financial feasibility compared to a triplex development with current parking standards. Specifically, the financial gap was reduced from \$2,700 per unit with the triplex development to \$100 per unit with the six-plex development. While the \$2,600 per unit improvement may not seem large, it is nearly sufficient to make market-rate developments feasible.

Next, eliminating the off-street parking requirement for six-plex developments with an affordable unit could have two offsetting effects. On the one hand, the reduction in parking requirements should improve financial feasibility. On the other hand, the inclusionary requirement would reduce feasibility. On net, this policy option reduces feasibility from \$2,700 per triplex unit to \$4,000 per six-plex unit. While this option results in lower feasibility, it provides a public benefit by creating an affordable unit.

Exhibit 17. Feasibility Gaps with Regulatory Changes, Hill District Triplex, and Six-plex Prototypes

Source: ECONorthwest

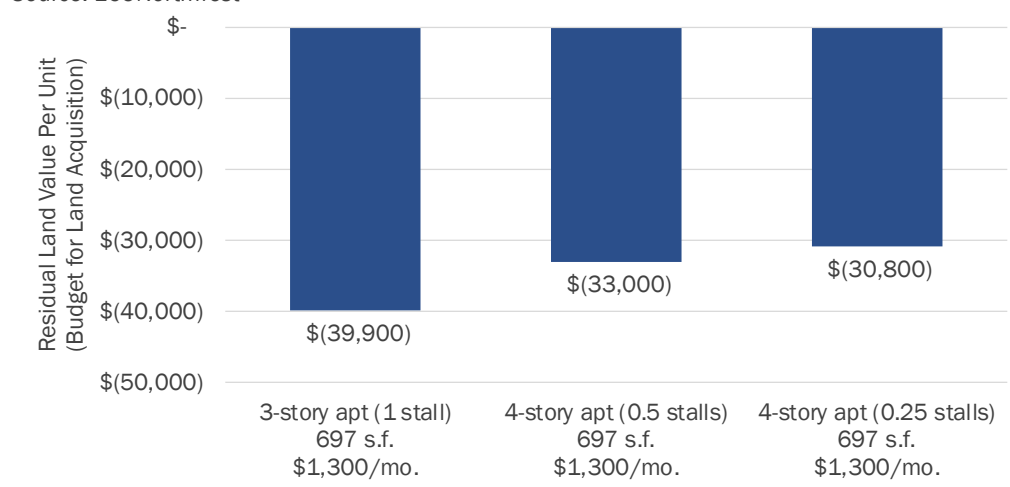


Four-story Multifamily Allowance

Allowing four-story apartment buildings with a higher height allowance (by one floor and 10 feet) and a higher density allowance (by 0.5 FAR) and reduced parking requirement (to 0.5 stalls per unit) improves feasibility by \$6,900 per unit relative to three-story apartments with one parking stall per unit. To ensure these allowances help create housing opportunities for lower-income households, they could apply to developments that voluntarily or mandatorily provide at least 10% of units for households earning 50% of MFI or less.

Exhibit 18. Feasibility Gaps with Regulatory Changes, Hill District Apartment Prototypes

Source: ECONorthwest



Recommendation: Make targeted changes to the zoning code that help to make housing development possible.

- Reduce parking requirements to 0.5 spaces per unit or less
- Increase allowable heights and densities
 - Allow 3-4 story buildings in the C Zone
 - Allow middle housing types like six plexes in the RM-M zones (the City could consider doing this by configuring this as a density bonus in exchange for affordable units)
 - Reduce minimum lot sizes
 - Explore deeper affordability density bonus (20% of units at 50% AMI)
- Eliminate most of the RP zones that are already built out. Replace them with more standard zones that fit the desired future character of the area to enable easier review of future development.

Financial incentives could reduce the financial gap for new construction housing or make it possible for households to rent newly built units.

Tax abatement

A tax abatement for affordable housing already exists, but it is limited to just the City of Pittsburgh's property tax collections. The City's current program allows for a 10-year reduction in assessed value up to \$250,000 per unit for developments that include at least 10% of units at 50% of MFI or lower.

Applying the City's tax abatement program to other jurisdictions would reduce the feasibility gap. If the City were to work with overlapping taxing districts to expand the tax abatement to include school district, county, and Carnegie Library property taxes, it would decrease the financial gap by about \$35,000 per unit for ownership units and about \$27,500 per unit for rental units. It would not affect the City's budget because the City already has a tax abatement program but would result in fewer collections in other taxing districts.

One-time subsidy

We also looked at a one-time investment to support permanently affordable ownership of townhome units by households that earn 50% of MFI or less. As an example, there is a \$273,500 gap in the ownership of townhomes modeled in our analysis.

A one-time investment of that amount could enable households that earn 50% of MFI to afford a new, market-rate townhome unit. This amount is probably comparable to the outlay that the City might make on public housing programs. The City could explore this in

conjunction with its Assured Cash Experiment,⁸ a pilot program exploring universal basic income.

Rental Voucher

A rental voucher program could support lower-income households who want to continue renting in Hill District. We estimated that a monthly subsidy of \$450 would be necessary to help households earning 50% of MFI or less to pay for rents in newly built apartments. This amount would reduce the \$143,700 gap for 3-story apartments to \$39,900 so that rental voucher holders would be able to compete for and afford a new, market-rate apartment unit.

Both the one-time investment and the rental voucher program would require new expenditures from the City's budget. The expansion of the tax abatement program would result in fewer collections in other taxing districts.

Recommendations:

- Expand the current property tax abatement to include overlapping taxing districts.
- Explore the creation of a rental voucher program for the Hill District

Innovative housing solutions, such as co-ops, could be a viable tool for creating affordable homeownership opportunities.

Housing cooperatives (co-ops) by contrast offer a more flexible and affordable legal structure to create owner-occupied attached housing. Limited-equity co-ops, in particular, can extend homeownership access to low and middle-income populations and guarantee housing affordability in perpetuity.

Units reserved at 80% or 100% of MFI are financially feasible with limited to no subsidy and limited social investor equity. However, as the level of affordability deepens, the required levels of subsidy and social investor equity would need to increase. Anything below 70% MFI would have to reduce the mortgage, to lower the debt payment enough for an affordable monthly payment to cover it, and therefore requires even more free or low-cost money.

We modeled the most feasible unit type (two-bedroom units in a six-plex), which would be suitable for a single person or small family. Such a unit would not be suitable for larger families that need more bedrooms.

Co-ops do not work without lower-cost equity. An innovative option for directing funds to create affordable homeownership units would be to seek out low-cost loan sources that would be repaid over the course of a few years (for a construction loan) and the long-term (permanent funding). Such sources may be limited, but this modeling indicates as co-op development could use less money, per unit, than other types of ownership units. Exhibit 19 shows how the need

⁸ [https://pittsburghpa.gov/press-releases/press-releases/5253#:~:text=PITTSBURGH%2C%20PA%20\(September%208%2C,in%20the%20City%20of%20Pittsburgh.](https://pittsburghpa.gov/press-releases/press-releases/5253#:~:text=PITTSBURGH%2C%20PA%20(September%208%2C,in%20the%20City%20of%20Pittsburgh.)

for subsidies (free money) and low-cost money (low-interest loans or social impact investors) increases as the affordability level of the project increases. At 80% MFI, there is a need for \$5,400 in subsidy and almost \$67,000 in low-cost equity.

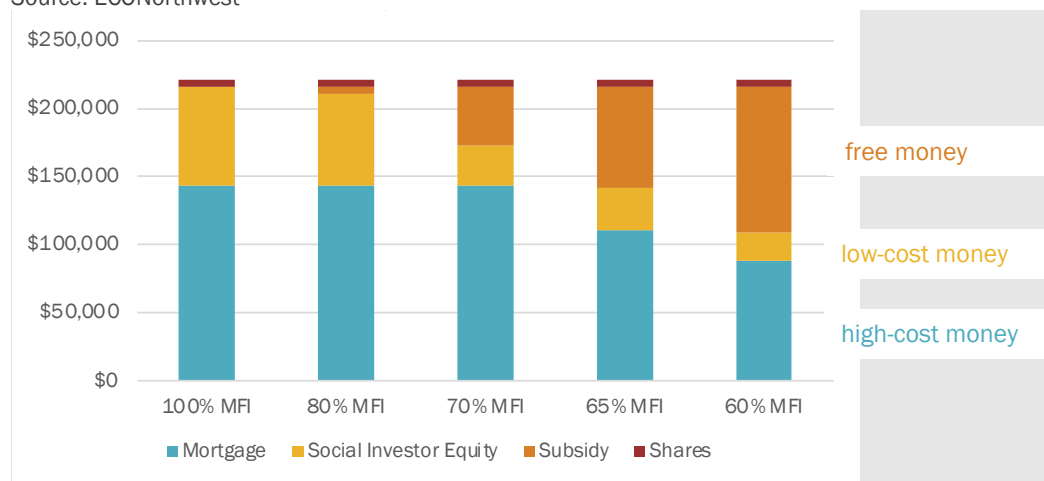
Exhibit 19. Sources of Money for a Co-op Unit (by Housing Affordability Level)

Source: ECONorthwest

	100% MFI	80% MFI	70% MFI	60% MFI	50% MFI
Mortgage (5.5% interest)	\$143,600	\$143,600	\$143,600	\$110,400	\$88,300
Social Investor Equity or Low-Cost Loans (3.5% interest)	\$72,300	\$66,900	\$29,100	\$31,800	\$20,800
Subsidy (grants)	\$0	\$5,400	\$43,200	\$73,700	\$106,700
Member Shares	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000
Total	\$220,900	\$220,900	\$220,900	\$220,900	\$220,900

Exhibit 20. Sources of Money for a Co-op Unit (by Housing Affordability Level)

Source: ECONorthwest



Seeking out a banking partner who could give more favorable terms could help to increase the feasibility of co-ops. Local banks or credit unions in the Hill District might be a good place to start these conversations. We modeled the co-op mortgage as a commercial loan, but another approach would involve each member seeking out their own share loan. The terms for share loans would likely be more favorable, with lower interest rates, depending on the income and credit of the person seeking the share loan.

Increasing the share price could change the overall subsidy needed for development.

Individual buyers for share prices would help to offset the overall project subsidy. The financial circumstances for potential members will vary, but sources for down payment assistance could be used for share loans. There could be a variety of partners who could participate in the share price amount, including federal sources (CDBG) or Individual Development Accounts.

Structuring a project as a limited-equity co-op could help owners gain some equity while ensuring permanent housing affordability. LEHCs extend homeownership access to people who would otherwise rent, providing the benefit of fixed housing costs and eliminating the risks of escalating rent and geographic displacement. LEHCs create affordable homeownership through middle housing because of their low setup cost (relative to condos), flexibility (any

configuration of housing, even on distributed sites, can be co-owned), and the lessened need for purchase financing (typically purchased with cash, even by low-income households).

Recommendation: Reduce regulatory barriers to co-ops and explore co-op and other creative housing funding strategies.

- Explore whether there are potential code barriers to cooperative housing unit types, such as requirements that limit unrelated occupants
- Identify potential partners for a revolving loan fund for cooperative ownership models that could be funded by various partners
- Consider funding a grant to fund a model structure for cooperative housing structures in the Hill District at different scales that would help potential developers understand regulatory, legal, funding, and physical considerations when developing cooperative housing
- Consider nexus to the Hill Community Land Trust under consideration.

Renovating existing housing generally has a smaller financial gap than building new construction, specifically for ownership units.

Most of the vacant townhome building stock in the Hill District is owned by the City of Pittsburgh and is ripe for redevelopment through public-private partnerships. Some units are privately owned and are transacting in the open market. In a survey of townhome sales from 2019 to 2021, several homes were likely sold as opportunities for renovation or recently flipped properties in the Middle and Upper Hill, detailed in Appendix A. The sale for opportunity homes ranged from \$23,000 to \$97,900, while the sale prices for recently renovated homes were slightly higher, from \$42,000 to \$139,000.

On a per-unit basis, renovating townhomes costs less than building new ones. We heard that the renovation costs are \$100,000 to \$200,000, depending on the site and building conditions. Given that the “opportunity” homes are likely to need additional renovation before the sale, but the recently renovated and “flipped” homes are sold at prices to include profits, the actual cost to acquire and renovate an existing unit is likely somewhere in the middle of the two ranges.

Townhome Renovation Subsidies

To understand the gap between a prospective homeowner’s ability to pay and the cost to renovate a townhome, we calculated the total subsidy amount that would be needed for households on the Hill District 100 List, which the Hill CDC developed and manages (see Section 2). We compared the difference between average mortgage costs and an affordable share of income to spend on housing at all AMI levels. Key findings include:

- The average monthly cost for households purchasing and renovating townhomes in the Hill District would be **\$1,668**.

- A targeted affordable homeownership program for townhome rehabs could support households at 80% AMI with no subsidy required.
- For four-person households at 30% AMI using 30% of monthly income for housing costs, **gap funding of \$218,000 per unit** for a townhome rehab.
- For 4-person households at 50% AMI (using 30% of monthly income for housing costs), **gap funding of \$133,000 per unit** for a townhome rehab.

Applying the per unit gap funding across the list of Hill District 100 respondents, **\$68.7 million** of funding would be required to support homeownership for all 652 households on the Hill District 100 list (as of Fall 2021). However, a targeted rehab affordable homeownership program could serve nearly 270 households in the 50%-80% AMI category with approximately **\$35.4 million**. These nearly 270 households could secure longer-term stability, generate household wealth, and bring interested households back to the Hill District with a subsidy of up to **\$133,000 per unit**.

Income and Ability to Pay

ECONorthwest made assumptions about household size, ability to pay, and eligibility requirements for mortgages and rentals at different income levels. The AMI groups assumed four-person average households, as 55% of list respondents reported that they desired three-bedroom homes, and a four-person household is the household size matched with three-bedroom units by HUD. Ninety-one percent of respondents said that they wanted to pay less than \$150,000 to purchase a house, however, ECONorthwest primarily based our calculations on ability to pay by measuring roughly 30% of households' income (Exhibit 21).

Exhibit 21. 2020 Area Median Income (AMI) Income Limits for 4-Person Households, Ability to Pay

Source: Urban Redevelopment Authority of Pittsburgh, ECONorthwest Calculations

Area Median Income (AMI)	Annual Income (4-Person HH)	Monthly Income (4-Person HH)	Affordable Housing Cost (30% Monthly Income)	Approx. Share of HD 100 in AMI Threshold (%)
30%	\$26,200	\$2,183	\$655	23%
50%	\$41,500	\$3,458	\$1,037	41%
80%	\$66,400	\$5,533	\$1,660	24%
100%	\$83,000	\$6,916	\$2,075	5%
>100%	>\$83,000	>\$6,916	>\$2,075	6%

Townhome Rehab Costs

To determine what the monthly mortgage cost would likely be for households, we confirmed an estimated average cost for this analysis based on real-world projects. However, potential renovation costs range, depending on the condition and the size of the residential unit. We also assumed a 12% developer fee which would add an additional \$28,200 to the overall project costs for a total cost of **\$263,200 per unit**.

Exhibit 22. Average Costs for Townhome Rehab in the Hill District

Source: ECONorthwest 2021 Housing Development Feasibility Analysis

Expenses	Cost
Average townhome purchase	\$85,000
Average renovation	\$150,000
12% developer fee	\$28,200
Total	\$263,200

Using this average cost, we determined the monthly mortgage payments that a household would need to make when purchasing a renovated townhome. Assuming a 5% down payment of \$13,160, the loan amount would be roughly \$250,000. We assumed a 30-year loan with a 3.8% interest rate, 0.3% PMI, and no HOA fees. Additionally, we estimated the annual total taxes at \$4,500 and \$800 per year for homeowners' insurance. These assumptions are summarized in Exhibit 23.

Based on these assumptions, the average total monthly cost for households to purchase renovated townhomes in the Hill District would be **\$1,668**.

Exhibit 23. Mortgage Assumptions Summary

Source: Mortgage Calculator

	Costs
Loan amount	\$ 250,040
Interest rate	3.8%
Loan term (years)	30
City taxes	\$1,642
Other taxes	\$2,879
Total taxes/year	\$4,521
PMI	0.3%
Home insurance/year	800
Monthly HOA	\$0
Total monthly payments	\$1,668

Finally, we compared the average monthly payment amount of \$1,668 with the maximum monthly mortgage payment for 4-person households at different AMI brackets (30% of monthly income). The difference between these two numbers would be the approximate gap funding needed for a household at that income level to pursue townhome rehab—likely with the assumption of some down payment assistance for the initial 5% down payment.

To understand the order of magnitude of resources needed to support affordable homeownership for the Hill District 100 list, we assumed that a one-time gap funding strategy would be needed to make homeownership affordable. This would avoid ongoing debt service of the principal on the mortgage through an alternative approach such as monthly mortgage vouchers to close the feasibility gap.

Exhibit 24. Subsidy Needed for Affordable Townhome Rehab in the Hill District by AMI Level (Four Person Household)

Source: ECONorthwest Calculations

% AMI	Townhome Sales Price	Monthly Mortgage Payment	Gap Funding per Unit	Number of Households	Total Gap Funding
30	\$45,000	\$655	\$218,000	153	\$33,354,000
50	\$130,000	\$1,037	\$133,000	266	\$35,378,000
80	\$263,000	\$1,660	--	157	--
100	\$350,000	\$2,075	--	35	--
>100%	>\$350,000	>\$2,075	--	41	--

Using the calculations above, we found that:

- Households between 50% and 80% AMI and higher could on average pay monthly costs for townhome purchase and rehab without large subsidies (especially at the higher end of 80% AMI). This group accounts for roughly **24% of Hill District's 100 respondents** (103 households).
- Households making 30 to 50% of AMI (41% of the Hill District 100 list) would be able to afford the \$1,037 monthly payment with upfront **gap funding of \$133,000 (for a household making 50% AMI) to \$218,000 (for a household making 30% AMI)**.
- Households at 30% of AMI would require higher per unit funding gaps to maintain affordability with at least **\$218,000 of gap funding needed per unit**. Affordable homeownership programs sometimes struggle to secure funding to target homeownership for households below 30% AMI. Housing needs for this income category could be addressed through other housing options including regulated affordable rental housing and potentially through cooperative ownership structures depending on the funding availability and program structures.

Recommendations:

- Explore a targeted affordable homeownership program in rehabilitated townhomes for households with comes from 50-80% AMI. This could be structured in tandem with a community land trust, ensuring permanent affordability.
- Explore how existing funding sources could help to capitalize a fund that could provide homeownership opportunities using the Hill District's existing vacant building stock.
- Explore the creation of an Adopt-a-House grant program with existing homeowners
- Expand PHDC Rehab Investments
- Expand PHDC Developer Partnerships for Conservatorship Properties
- Review programs proposed in the 2011 Plan related to vacant land and buildings

Appendix A. Rehabilitation Examples

Exhibit 25. Townhome Sales and Rehabilitation Type

Source: Zillow

Address	Sale Price	Search Engine Estimate	Details	Size	Year Built	Type
927 Clarissa St	\$22,914	\$109,400	2 bd, 1 ba	1,030 sqft	1925	Opportunity
3374 Milwaukee St	\$25,250	\$234,600	3 bd, 4 ba	1,794 sqft	1920	Opportunity
3434 Webster Ave	\$30,000	\$97,900	2 bd, 1 ba	1,064 sqft	1930	Opportunity
3434 Webster Ave	\$30,000	\$97,900	2 bd, 1 ba	1,064 sqft	1930	Opportunity
3339 Webster Ave	\$37,750	\$124,300	3 bd, 1 ba	1,444 sqft	1910	Opportunity
2906 White St	\$42,000	\$45,900	2 bd, 1 ba	960 sqft	1910	Flipped
2524 Bedford Ave	\$54,200	\$142,600	4 bd, 1.5 ba	1,280 sqft	1900	Flipped
515 Landleiss Pl	\$70,000	\$107,300	3 bd, 1 ba	1,356 sqft	1928	Opportunity
3367 Webster Ave	\$80,000	\$127,200	2 bd, 1 ba	1,788 sqft	1931	Opportunity
3345 McNeil Pl	\$80,000	\$82,400	2 bd, 2 ba	2,924 sqft (lot)	1950	Opportunity
3347 Webster Ave	\$97,500	\$114,400	3 bd, 1 ba	1,444 sqft	1930	Flipped
3345 Webster Ave	\$97,900	\$104,200	3 bd, 2 ba	1,444 sqft	1930	Opportunity
3320 Webster Ave	\$137,000	\$171,500	3 bd, 2 ba	2,400 sqft (lot)	1920	Flipped
2314 Wylie Ave	\$139,000	None	4 bd, 3 ba	1,824 sqft	1920	Flipped

Appendix B. Pro forma Methodology

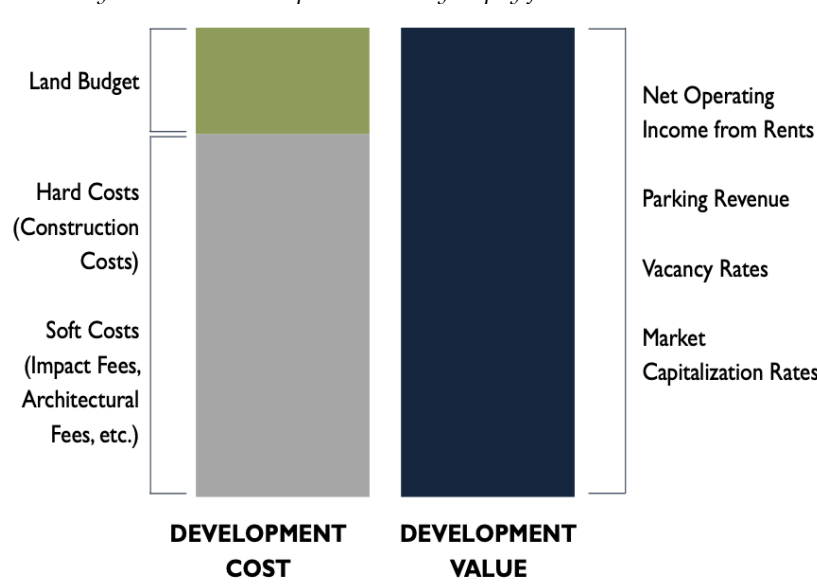
ECONorthwest used a common financial pro forma method called a *residual land value analysis* to analyze the impact of regulatory and incentive changes on development feasibility. Residual land value (RLV) is an estimate of what a developer would be able to pay for land given the property's income from rental or sales revenue, the cost to build as well as operate the building, and the investment returns needed to attract capital for the project. In other words, it is the budget that developers have remaining for land after all the other development constraints have been analyzed. 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. It is therefore a useful metric for assessing the impacts of changes to the development code and accompanying development incentives because these policies principally affect land value, especially in the short run.

Exhibit 26 summarizes the residual land value method by illustrating two example developments (or *prototypes*), one which is feasible and the other likely infeasible. In both scenarios, the right-hand column (shown in dark blue) illustrates the total value that comes from the project (derived from rental revenue less any operating expenses and vacancy costs). The left-hand column (shown primarily in grey) illustrates the total costs to build the project, both the hard construction costs and the soft costs such as the design and city fees.

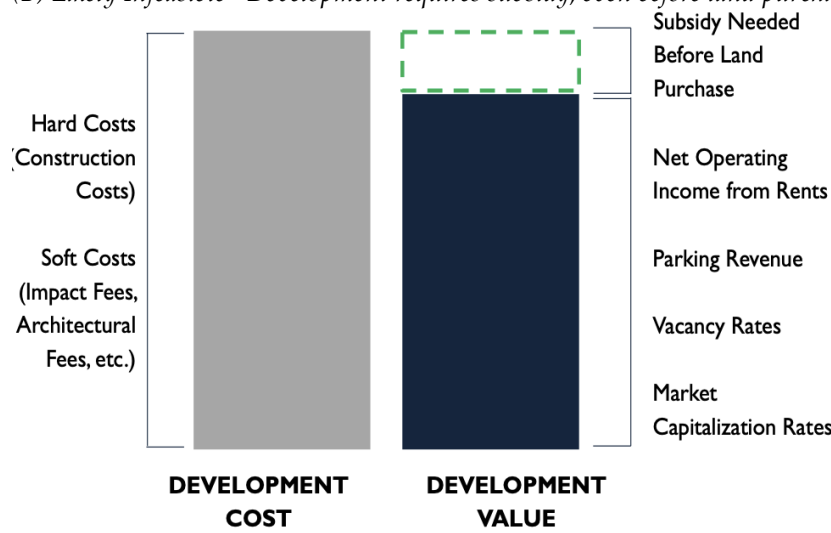
Exhibit 26. Land Budget Method for Pro Forma Modeling

Source: ECONorthwest

(A) Likely Feasible— Developer has money to pay for land



(B) Likely Infeasible– Development requires subsidy, even before land purchase



If the blue column is greater than the grey column, there is budget leftover to buy the land (shown in green). A positive land budget means that a proposed development project is likely to be feasible (contingent on the price for which the land is being offered). If the blue column is smaller than the grey column, then a subsidy is needed to get the project to be feasible (shown in a dashed outline). A land budget below \$0 means that a proposed development project is not feasible, absent offsetting subsidies or incentives that can cover the difference.

We analyzed each of the development concepts using this RLV approach on a per-unit basis. The results from this method describe a general analysis of prototypes and do not consider the many potential unique conditions that could be a factor in development feasibility (e.g., increased predevelopment costs, low land basis from longtime land ownership). For these reasons, residual land value analyses should be thought of as a strong indicator of the relative likelihood of feasibility, rather than an absolute measure of return to the investor or developer.

To complete this analysis, financial inputs such as rent, operating costs, and development costs for each prototype were modeled and Pittsburgh’s entitlements for R2-L, RM-M, and zones were used as inputs.

After defining the available building areas, the pro forma either calculates the net revenue from the sale of ownership units or, in the case of rental units, calculates the revenue from the rents of the leasable areas and then removes the vacancy and operating costs (such as taxes, insurance, maintenance, management, select utilities) to arrive at an annual net operating income (NOI). The analysis derived the value of rental developments by dividing the NOI by a return on cost threshold (ROC).

The total development costs are calculated by applying the cost per square foot values to the gross square feet for each product type (e.g., townhouse, multifamily) and the cost per stall for parking. Those values are then summed to a total hard cost and then soft cost, contingency, and developer fee are calculated to arrive at the total development cost.

The land budget (the RLV) was calculated by subtracting the total development cost from the total value (shown in Exhibit 27). The total land budget was divided by the site's square feet to arrive at a residual land value per square foot.

Exhibit 27. Residual Land Value Calculation (with additional explanatory calculations)

Source: ECONorthwest

$$RLV = Total Value - Total Development Costs$$

$$Total Value = (NOI \div ROC) \text{ or } (Net Sales Revenue)$$

$$NOI = Rental revenue - operating costs - vacancy costs$$

Appendix C. Pro forma Assumptions

ECONorthwest completed this analysis in Fall 2021. These tables present a summary of the assumptions that we gathered from developers who work in the Hill District and information that we compiled from the zoning code.

Physical Assumption		
Variable	Value	Unit of Measure
<u>Average Leasable Unit Size</u>		
Duplex / Townhouse	1,700	Square feet
Triplex / 6plex	862	Square feet
Woodframe	697	Square feet
<u>Gross to Net Ratio</u>		
Duplex / Townhouse	1	
Triplex / 6plex	0.95	
Woodframe	0.9	
<u>Average Gross Unit Size</u>		
Duplex / Townhouse	1,700	Square feet
Triplex / 6plex	907	Square feet
Woodframe	775	Square feet
<u>Parking</u>		
Residential Parking Ratio	1.00	Stalls per unit
Commercial Parking Ratio	5.00	Stalls per 1,000 sf GSF
Surface Parking Size	325	Square feet per stall
Garage Parking Size	240	Square feet per stall
Driveway Size	240	Square feet per unit
<u>Construction Costs</u>		
Variable	Value	Unit of Measure
<u>Hard Costs</u>		
Duplex	\$ 248,000	Per unit
Townhouse	\$ 235,000	Per unit
Triplex	\$ 161,000	Per unit
6plex	\$ 151,000	Per unit
3-story apartment	\$ 168,000	Per unit
4-story apartment	\$ 161,000	Per unit
<u>Soft Costs</u>		
Duplex/Triplex Total Fees	\$ 20,000	Per unit
Apartment Total Fees	\$ 15,000	Per unit
Duplex/Triplex Other Soft Costs	25.0%	Percent of hard costs
Apartment Other Soft Costs	25.0%	Percent of hard costs
Contingency Fee	4.0%	Percent of hard and soft costs
Developer Fee	3.0%	Percent total development cost

Revenue and Cost					
Variable		Value		Unit of Measure	
<u>Sales</u>					
Duplex		\$	362,100	Per unit	
Townhouse		\$	355,000	Per unit	
Sales Commission		3.0%		Percent of sales	
<u>Rent (Blended)</u>					
Triplex		\$	1,530	Per unit, monthly	
6plex		\$	1,500	Per unit, monthly	
Woodframe		\$	1,300	Per unit, monthly	
Ground Floor Retail		\$	17.00	Per square foot, annualized	
<u>Vacancy Rate</u>					
Residential		6%		Percent	
Retail		5%		Percent	
<u>City of Pittsburgh Property Tax</u>					
2020 Millage		0.806%		Of assessed value	
Homestead Exemption		\$	15,000		
Senior Tax Relief		40%			
<u>School District of Pittsburgh Property Tax</u>					
2020 Millage		0.995%		Of assessed value	
Homestead Exemption		\$	29,944		
Senior Tax Relief		0%			
<u>Allegheny County Property Tax</u>					
2020 Millage		0.473%		Of assessed value	
Homestead Exemption		\$	18,000		
Senior Tax Relief		30%			
<u>Carnegie Library Property Tax</u>					
2020 Millage		0.025%		Of assessed value	
Homestead Exemption		\$	15,000		
Senior Tax Relief		40%			
<u>Other Tax Info</u>					
AV Ratio		65%			
Present Value of Abatement		62%		Of total taxes	
<u>Operating Expenses</u>					
Residential		15%		Of gross revenue	
Retail		25%		Of gross revenue	
<u>Target Returns</u>					
Residential Ownership (Spread)		12.00%		Percent	
Residential Rental		5.20%		Percent	
Retail		7.00%		Percent	

Appendix D. Glossary

Affordable Housing. “Affordable housing” refers to rental housing where households earning up to a certain percentage of the regional median household income can afford by paying no more than 30% of their pre-tax income on rent.

Regulated Affordable Housing. Housing that is income or rent-restricted to ensure it is occupied by households earning a certain income. Regulations are set according to the types of funding used to develop the housing, such as the Low-Income Housing Tax Credit, or U.S. Housing and Urban Development (HUD) funding. Most rent-restricted affordable housing is restricted to households earning <60% MFI, but restrictions vary.

Housing Affordability. “Housing that is affordable” refers to any type of housing, regulated or not, that costs <30% of a household's pre-tax income. This definition is a generally accepted definition of affordability. It is not the same as “affordable housing.”

Community Land Trust. A land banking model where a community organization owns land and provides long-term ground leases to low-income households to purchase the homes on the land, agreeing to purchase prices, resale prices, equity capture, and other terms. This model allows low-income households to become homeowners and capture a portion of the growth in home value as equity but ensures that the home remains affordable for future homebuyers.

Development Costs. The costs of building and constructing a new development. These costs include land costs, hard costs, and soft costs.

- **Land costs** are determined by both demand for space and the supply of developable land, which is influenced by topography, zoning, and existing developments, among other factors.
- **Hard costs** are the costs incurred for the construction of a building, including wages of construction workers, lease rates of construction equipment, and the prices of raw materials are components of construction costs.
- **Soft costs** include the labor of architects, engineers, designers, and planners as well as the costs of interacting with the government, which include taxes and permitting processes and fees, and fees that developers charge to pay for their own labor.

Development Standards. A set of specifications set forth by a municipal code that regulates land use and development.

- **Zone.** Classification within a municipal code that indicates uses and building types allowed on land with that designation (e.g., commercial, residential, industrial)
- **Floor Area Ratio.** Measurement that indicates the relative size of a building's total floor area to the size of the parcel of land it is on (e.g., 2:1 FAR could mean a 2-story building that covers 100% of its parcel or a 4-story building on 50%)
- **Lot Size Minimum.** The smallest area permitted for a parcel of land
- **Lot Size per Unit.** The smallest size permitted for individual units on a parcel

- **Maximum Lot Coverage.** The largest area that a structure is permitted to fill on a parcel
- **Off-Street Automobile Spaces.** The number of parking spaces that a building (or units in a building) must have associated with it that are not on public streets

Income Level. Income can be measured in several different ways for different purposes.

- **Median Family Income (MFI).** The U.S. Housing and Urban Development (HUD) produces an area's median family income each year to measure affordability thresholds. Affordable housing deals, loans, and other HUD requirements will be assigned to a percentage of the MFI.
- **Area Median Income (AMI).** A more general term for HUD's income measurements. "If the term AMI is qualified in some way—generally percentages of AMI, or AMI adjusted for family size, then this is a reference to HUD's income limits, which are calculated as percentages of median incomes and include adjustments for families of different sizes."⁹

Residual Land Value (RLV). The developer's maximum land budget once they've accounted for their operations, construction, investor returns, etc.

Revolving Loan Fund. A pool of money from which loans are issued to eligible recipients for specific uses. In the case of transit-oriented affordable housing revolving loan funds, the loans have lower interest rates and more generous terms compared to market loans. When the loans are repaid, new loans can be issued.

⁹ Office of Policy Development and Research, "Income Limits FAQs," US Department of Housing and Urban Development, 2021, https://www.huduser.gov/portal/datasets/il.html#2021_faq.