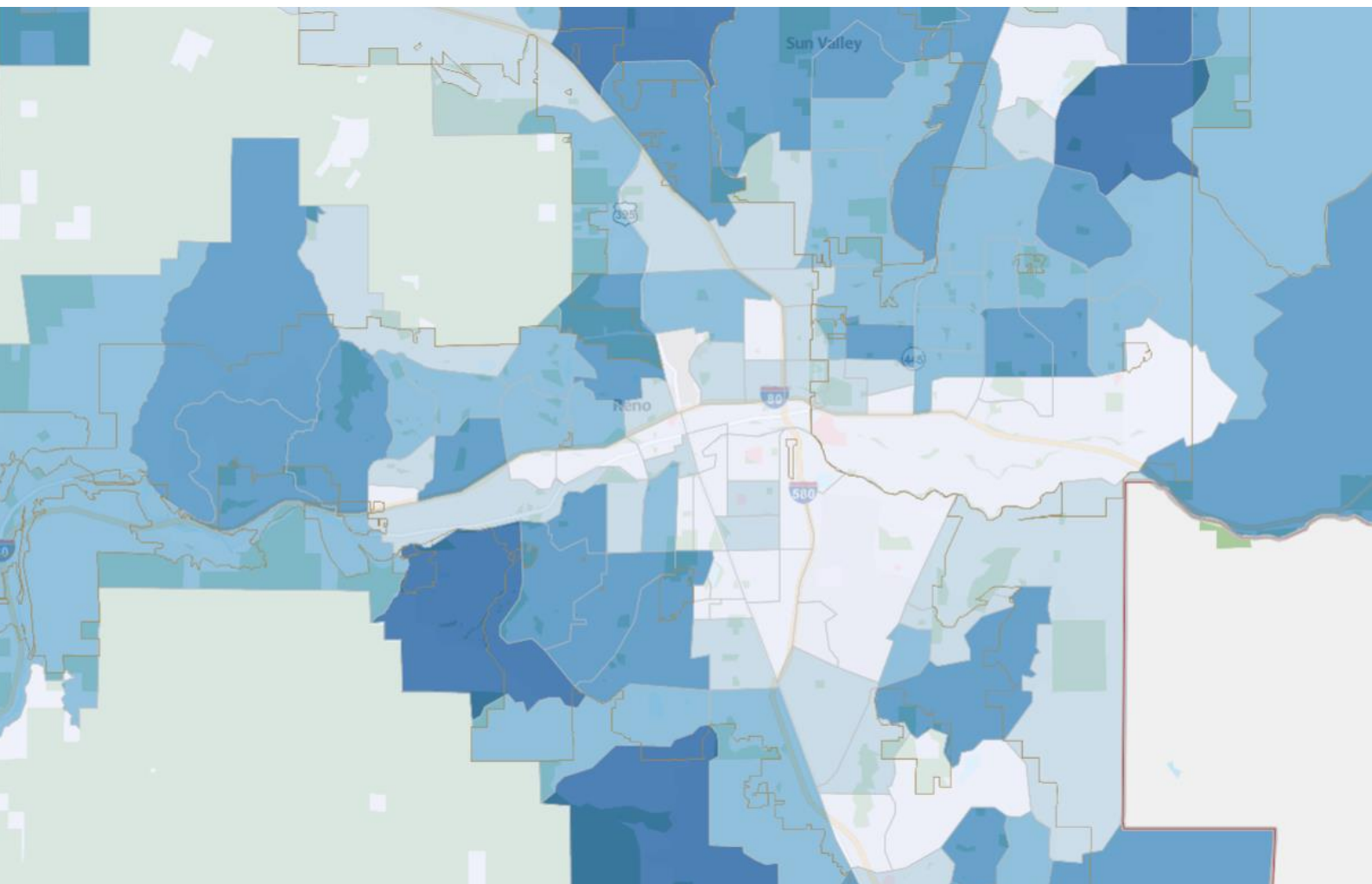


Local Strategies For Improving Housing Affordability

Produced by Shane Phillips
for the City of Reno



October 2nd, 2023

Table of Contents

1. Executive Summary	2
2. About the Project	9
3. About the Consultant.....	10
4. Definitions, Goals, Constraints, and Assumptions	11
5. Reno’s Housing Strengths.....	19
6. Challenges and Barriers to Affordability in Reno	21
7. Recommendations	35
A. Infrastructure planning and development fees	36
B. Project review streamlining and interagency coordination	43
C. Incremental and “missing middle” infill housing production.....	48
D. Zoning, development, and code standards.....	53
E. Displacement protections and housing preservation	58
8. Summary of Recommendations	62
9. References	70

1. Executive Summary

Housing affordability in the City of Reno has worsened considerably in recent years. In 2017, the median home price was an estimated \$320,000. By 2023 this had grown more than 60%, to \$520,000. Median rent increased 51% over a shorter five-year period from 2017-2022, from \$946 to \$1,430 per month. Median household incomes, by comparison, grew by only 26%.

Reno and Washoe County's increasing unaffordability burdens residents and employers and weakens the region's economic vitality. Rising prices also threaten each of the eight guiding principles outlined in the Reimagine Reno Master Plan, from public safety and inclusive communities to open space and effective government.

Bringing rents and housing prices under control is a complex and challenging task, and there are no silver bullets. One of the most consistent findings in housing research, however, is that places that build more housing tend to see slower price and rent growth, and places that build very little rapidly become unaffordable. Local officials in the Reno metro area have successfully attracted a diverse range of employers, bolstering the region's economy, but housing production has fallen short of rapidly growing need. Metro area employment increased by 13.3% in the five years leading up to 2022, while the housing stock grew by only 10.6%.

Homebuilding is also largely under the jurisdiction of local governments, which set policy on everything from zoning to permitting processes and impact fees. Reasonable protections for vulnerable populations and generous public investments are also part of any holistic housing plan, but building housing to meet rising demand and changing needs is the strategy most critical to affordability and most under the control of local public officials.

Infill housing — small lot and multifamily housing in the city's core and near major corridors — is of particular value because these homes are naturally more affordable than detached, large-lot houses and they support a range of other city priorities including mobility, public health and safety, and a resilient municipal budget. Increased infill housing production is critical to meeting the Truckee Meadows Regional Planning Agency's goal to "promote density and intensity towards the core of the Region."

This report is an analysis of the major barriers to improving housing affordability in the City of Reno and recommendations for addressing them. A review of local policies and regulations, interviews with city officials and private sector stakeholders, and a tour of Reno's diverse neighborhoods revealed five priority areas for reform:

- Infrastructure planning and development fees
- Approval streamlining and interagency coordination
- Incremental and "missing middle" infill housing production
- Zoning, development, and code standards
- Displacement protections and housing preservation

The remainder of the executive summary highlights key findings from the analysis of housing affordability barriers and recommendations for reform, with a particular focus on reforms actionable at the city or regional level.

A. Infrastructure planning and development fees

Reno officials must consider the impacts of development on its public infrastructure and local services, and these impacts are addressed primarily through fees and off-site infrastructure requirements imposed on developers. As structured, these assessments unintentionally disadvantage infill housing relative to “greenfield” suburban development. Off-site infrastructure requirements fail to consider the value of these upgrades to local public agencies and nearby residents and businesses, and their uncertain, variable nature likely deters otherwise feasible projects from moving forward. This also means the city is missing out on the infrastructure improvements these projects help finance. Impact fees, meanwhile, may not fully account for the budget-boosting benefits of infill development.

To increase the predictability and fairness of off-site infrastructure requirements, the City should: Update its capital plan with more comprehensive infrastructure repair, replacement, and upgrade schedule, and use this to compensate developers for off-site infrastructure requirements on a pro rata basis.

Specific recommendations include:

- Develop a detailed infrastructure maintenance plan including the age, condition, and planned replacement or upgrade date for infrastructure types the City often requires developers to replace or improve as a condition of project approval.
- Use this plan during the project approval process to determine developers’ pro rata contribution toward off-site improvements, splitting costs between the City and developers.

While this approach may reduce costs for some developers, it may increase costs for others. Reducing costs for infill development is one goal of this reform, but a more important purpose is improving cost consistency and ensuring each developer contributes roughly equally, after adjusting for project size.

To improve impact fee structures and ensure infill projects are not unduly disadvantaged, the City should: Adjust impact fees to reflect lifecycle costs and revenues from new housing.

Specific recommendations include:

- Develop an estimate of short- and long-term government revenues and expenses associated with new housing and adjust fees to better reflect “lifecycle” costs, evaluating the fiscal impacts of multifamily infill housing and detached, suburban-style housing separately.
- For fees that are not fully eliminated, consider charging fees proportionate to square footage rather than unit count.

These reforms would impose a short-term budgetary cost, but Reno officials may find they improve long-term fiscal resilience if they lead to a sustained rise in infill housing production. To avoid budget shortfalls the City may devise strategies to reimburse developers over time for some of the cost of off-site requirements and fees as the fiscal benefits of denser, more centrally-located housing accrue.

B. Approval streamlining and interagency coordination

Stakeholder interviews revealed frustration with the entitlement and permitting process. Issues raised by private sector stakeholders include long and unpredictable review timelines, inconsistent application of regulations and guidelines, and a lack of urgency within some agencies that bear responsibility for housing approvals, certifications, and connections. Slow, uncertain, and uncoordinated review processes are an ideal target for reform because they benefit no one yet slow the delivery of new homes and drive up their cost, rendering some projects infeasible. The City of Reno's commitment to returning comments to project applicants within 10 business days is exceptional, but its impact is diminished by other agencies, businesses, and jurisdictions involved in the housing approval process that lack similar standards, and by regulations and processes that entail considerable discretion, sometimes leading to conflicting guidance.

To streamline project approvals and deliver housing more quickly and at lower cost, the City should: Increase the use of simple, objective standards and by-right approvals.

Specific recommendations include:

- Establish objective design and development standards for multifamily infill housing.
- Allow by-right approval of multifamily infill housing except for large projects of at least 100 units or more and projects seeking substantial variance from zoning or development standards.

In addition to facilitating more consistent review and faster approvals, increasing reliance on objective standards and by-right processes will claim city staff time for higher-value tasks such as long-term planning and community engagement.

To improve interagency coordination and direct non-City agencies' attention toward housing costs, the City should: Take steps to improve regional and interagency coordination and direct non-City agencies' attention toward housing costs.

Specific recommendations include:

- Organize a roundtable of agencies involved in residential permitting and approvals, collaborating to speed up housing approvals and identify and address other barriers to housing production and affordability.
- Consider partnering with state officials and other jurisdictions to establish statewide standards for review timelines by non-city agencies, including accountability mechanisms.

C. Incremental and “missing middle” infill housing production

The median income of Reno households living in single-family detached homes is nearly double that of households living in 2-unit and 3–4 unit buildings, and this is largely because these and other “middle” density buildings — often only modestly larger than suburban homes, but with more units — are affordable by design. They distribute land costs among multiple households, provide smaller units on average than detached houses, and avoid major cost drivers associated with higher-density development such as above- or below-ground parking, concrete or steel structures (and more specialized construction workers), and elevators.

Homes on small parcels and small to midsized multifamily buildings are largely missing from Reno’s development landscape, with 2–4 unit buildings accounting for only 3% of housing units permitted by the city from 2015-2021. The city’s zoning code and map are strong points in its housing policy framework, but regulations prohibit many kinds of small, naturally affordable attached and detached houses like accessory dwelling units. Meanwhile, a combination of overly restrictive development standards and limited areas with middle-density zoning make it impractical to build housing in the three- to four-story range. As a result, it is exceptionally difficult to build entry-level for-sale homes and modestly-priced rentals in the Reno market.

To increase the supply of low-cost attached and detached homes in neighborhoods across Reno, the City should: Legalize accessory dwelling units.

Specific recommendations include:

- Legalize accessory dwelling units on residential land citywide.
- Adopt development standards, by-right approvals, and fee standards that streamline ADU permitting and construction.

To increase entry-level homeownership opportunities for Reno residents, City officials may also wish to explore subdivision reform and other strategies to facilitate ADU ownership separate from ownership of the main house.

To increase the supply of naturally affordable small and midsized multifamily housing in the urban core, the City should: 1) Revise development standards including density and floor area limits to encourage small- and medium-scale entry-level infill housing, and 2) Substantially increase the amount of land zoned for “missing middle” density.

Specific recommendations include:

- Allow up to four units per parcel in single-family residential zones inside the McCarran Loop.
- Encourage these lower-cost housing options and discourage mansionization and flipping by granting modestly higher floor area ratios to multifamily projects in these zones.
- Replace MF-14 and MF-21 with MF-30 zoning to increase likelihood of redevelopment.

- Establish new MF-45 and MF-60 zones that allow 45 and 60 units per acre, respectively, and apply to parcels currently zoned MF-30.

Creating new pathways to build low-cost, smaller-scale housing can also improve the local developer and construction labor market. Cities that make it easy to build missing middle housing, especially accessory dwelling units, have seen entirely new industries develop with firms specializing in these housing typologies, in addition to women and people of color entering a development industry traditionally lacking gender and racial diversity.

D. Zoning, development, and code standards

The Reimagine Reno Master Plan took important steps to improve the city's zoning and development standards, but they still generally reflect the past 100 years of US housing policy and urban planning, during which suburban housing and cars were prioritized at the expense of urban neighborhoods, businesses, and residents. In addition to increasing homebuilding costs and negatively impacting housing production and affordability, these policies degrade the urban environment and undermine efforts to improve mobility and public health. They also limit the housing choices available to Reno residents while providing few (or no) countervailing benefits.

Excessive minimum parking requirements produce bulkier buildings, and in above- or below-ground garages each space can cost \$20,000 to \$50,000 or more. There is also considerable evidence showing they increase automobile dependence, traffic congestion, collisions resulting in injury and death, pollution and other negative health outcomes, and greenhouse gas emissions. Another example is the building code requirement for two stairwells in most multifamily buildings. This mandate makes it difficult to build housing on small parcels, reduces building efficiency, and can increase costs by as much as \$14,000 per floor, yet there is no evidence that two stairs improves resident safety.

To improve housing affordability and design, and advance other Reno priorities for mobility, public health, safety, and economic vitality, the City should: Reduce or eliminate minimum parking mandates (with complementary parking reforms).

Specific recommendations include:

- Eliminate minimum parking mandates citywide.
- Consider establishing residential parking districts and permit programs in locations with high on-street parking demand.

Over 200 US jurisdictions have rolled back minimum parking requirements over the past decade, and nearly four dozen US cities have eliminated parking mandates citywide. While abolishing parking requirements was once considered a radical act, it is now becoming inevitable as cities look to a future with numerous alternative — and often healthier, inexpensive, and more convenient — mobility options.

To promote the construction of more efficient, sustainable, livable, and affordable infill housing, the City should: Reform the building code to allow single stair “point access block” buildings.

Specific recommendations include:

- Pursue building code reforms allowing a single stairwell in multifamily residential structures up to at least six stories tall.
- Organize a technical advisory group of state and/or regional building code council(s), the state fire marshal, and other interested parties as an early milestone.

Point-access block buildings are illegal in most of the US, but they have been allowed in Seattle and New York City for many years without incident, and are common in other developed nations with stronger building safety records. Washington State lawmakers in 2023 required the state building code council to explore allowing single-stair designs in buildings up to six stories tall, and California legislators issued a similar mandate this year with Assembly Bill 835.

E. Displacement protections and housing preservation

Without substantially increasing infill housing production, continued job and population growth in Washoe County will lead to rising home prices and rents, placing a heavy burden on renters, homebuyers, and local businesses, as well as the city’s budget and services. But housing unaffordability and insecurity are multifaceted problems, and supply alone will not solve them. Further, affordability should not be the City’s only goal; it should also promote housing security and stability. Housing abundance is a necessary condition for affordability, but homebuilding can also lead to displacement, and rents and home prices can change much more rapidly than new homes can be built to absorb demand. Furthermore, progress on homebuilding can be undermined by short-term rental (STR) businesses that remove housing from the market. Protective policies and regulations are important complements to homebuilding that can help assure residents, especially vulnerable tenants, that change will not come at their expense.

To preserve the existing housing stock, most of which will not be redeveloped in the near future, the City should: Proactively regulate short-term rentals.

Specific recommendations include:

- Restrict short-term rentals to primary residences. Prohibit short-term rental of houses, apartments, and condos unoccupied by the owner more than half the year.
- Alternatively, consider restricting full-house and full-unit STRs to a maximum of 90 or 120 days per year.

Proactively regulating short-term rentals is important to avoid these businesses becoming entrenched, and thereafter more difficult to regulate. When designing STR regulations, city officials must also consider how to balance the goals of minimizing short-term rentals and maximizing revenue, which are in tension.

To increase housing security and provide some measure of predictability to Reno tenants, the City should: 1) Explore state reform to allow limited “anti-gouging” rent stabilization, and 2) Implement just cause eviction protections.

Specific recommendations include:

- Explore the legal feasibility of rent stabilization policy in the City.
- If feasible, design rent stabilization include vacancy decontrol, caps on annual rent increases calculated by the sum of the inflation rate and a fixed percentage, and a 20-year exemption for new buildings.
- Explore the legal feasibility of just cause eviction protections that prohibit evictions under certain conditions.

This form of rent stabilization would have little to no impact on the supply or market price of rental housing in the city, unlike stricter forms of rent control which entail more trade-offs. Just cause protections can be a standalone policy, but if rent stabilization is adopted they are necessary for the rent regulation to function properly.

Nearly every policy and strategy outlined in this report has been implemented in numerous US cities, large and small. Unfortunately, most cities adopt these policies in piecemeal fashion, half-heartedly, or long after prices rise beyond the reach of the typical household. Reno officials, in partnership with residents, businesses, and civic organizations, are faced with the opportunity to leap ahead of peer cities, taking action boldly and in proportion to the challenges before them.

Change is difficult, but it is also an opportunity. Growing cities can harness investment for the benefit of current and future residents, while stagnating or shrinking cities have many fewer options. Reno can channel its growth into increased housing diversity, more resilient infrastructure, a more effective and efficient transportation network, a healthier municipal budget, new amenities for residents, employers, and visitors — and perhaps most importantly, it can improve and maintain its affordability in service of these goals.

2. About the Project

On behalf of the City of Reno, the Consultant has reviewed local zoning, development standards, impact fees, planning documents, and other housing policies and programs in the City and recommended reforms that can be undertaken by the City Council, departmental staff, and partner agencies and jurisdictions to improve housing affordability in Reno.

Recommendations include actions and reforms that can be pursued in the short and medium term, and reforms that may be implemented relatively easily as well as “stretch” policies that may entail a greater degree of transformation, require more community engagement and buy-in, or demand stronger coordination between the City of Reno and non-City agencies, jurisdictions, and private and public-sector partners. Drawing on the Consultant’s experience in government, the private sector, and academia, recommendations are informed by review of the scholarly literature as well as analysis of cities facing similar growth pressures and affordability challenges.

As part of this analysis, the consultant engaged in an in-person tour of the City of Reno, met with City staff across various agencies, and interviewed private sector industry professionals. He also reviewed City and regional planning documents and regulations, including:

- Title 18 Zoning Code
- ReImagine Reno Master Plan
- Housing Our Future – Truckee Meadows Regional Strategy for Housing Affordability
- City of Reno Capital Improvement Plan, 2021-2030
- City of Reno Annexation and Land Development Code
- 1,000 Homes in 120 Days Resolution
- Chapter 1.08 – Reduction or Subsidization of Impact Fees, Building Permit Fees and Sewer Connection Fees

3. About the Consultant

Shane Phillips is a housing and land use policy expert and manager of the Housing Initiative the UCLA Lewis Center for Regional Policy Studies. In this role he works with faculty, staff, students, and outside partners to develop novel research, evaluate policy, and develop educational materials to improve public understanding of the housing crisis and potential solutions to it. He received his bachelor's degree from the University of Washington and masters degrees in urban planning and public administration from the University of Southern California.

Shane is driven by empirical research and pragmatism, with experience advising government agencies, policymakers, elected officials, and advocates on effective policy design that can achieve intended goals while minimizing or mitigating unintended consequences. He draws on academic research, real-world best practices, and creativity to inform his recommendations. His advice has helped shape policies including real estate tax reform to support affordable housing development, transit-oriented density bonuses and parking reforms, tenant protections including rent stabilization and “just cause” eviction regulations, fee deferral, and affordable housing preservation, among many others.

Shane is author of *The Affordable City*, published in 2020, an affordable housing policy “handbook” for non-expert audiences. The book includes more than 50 strategies for improving affordability, stability, and dignity in housing. Shane also hosts and produces the UCLA Housing Voice Podcast, a biweekly show that explores new housing research with minimal jargon and an emphasis on lessons for policymakers and advocates. Shane has written for outlets including the Los Angeles Times, Atlantic, and San Francisco Chronicle, and has spoken about housing reform across the country, in-person and online, to audiences including the State of Oregon Department of Land Conservation and Development, Federal Reserve Bank of Minneapolis, National Building Museum, Southern California Association of Governments, Centers for Disease Control, Michigan American Planning Association, and numerous universities and civic organizations, as well as international audiences from Vienna, Austria, Barcelona, Spain, and elsewhere.

4. Definitions, Goals, Constraints, and Assumptions

The analysis and recommendations in this report are intended to help the city council, agencies and departments, and other interested parties to improve housing affordability in Reno. This goal must be compatible with City priorities outlined in guiding documents such as the Reimagine Reno Master Plan, including economic growth and resilience, mobility, open space and conservation, safety, and the management of infrastructure and public services.

This section discusses key definitions and concepts, outlines goals for this report, reviews constraints facing the city, and establishes a shared understanding about the core drivers of housing (un)affordability. It begins with a definition of housing affordability itself.

I. How housing affordability is measured

The most common way of measuring housing affordability is to calculate the share of income residents pay for housing and housing-related costs such as utilities. Affordability improves by reducing housing costs or increasing household incomes, and while both are important, this report only discusses the former. Local governments have more influence over housing costs via zoning and development standards, entitlement and permitting requirements, fees and exactions, taxes and subsidies, and so on. This report identifies strategies the City of Reno and its partners can employ to stabilize or reduce the amount residents spend on housing.

Another measure of housing affordability is the share of households that are “cost-burdened” (spending at least 30% of income on housing) or “severely cost-burdened” (spending at least 50% of income). Affordability is often measured relative to the area median income, or AMI, or some percentage of the AMI, in combination with cost-burden. For example, housing might be considered affordable to a very low-income household — which earns less than 50% of AMI — if they pay less than 30% of their (very low) income on housing. While these metrics may be referenced in this report, its emphasis is stabilizing or reducing housing costs in absolute terms. This will naturally improve affordability metrics independent of changes that may result from Reno’s changing demographics or socioeconomic profile or the presence of outside resources such as state or federal funding.

II. How cities reduce housing costs

Strategies to reduce housing costs can be broken into two categories: supply-side and demand-side interventions. On the supply side, price growth can be moderated by increasing the supply of housing. Additional homes increase competition among housing providers, and competition is largely waged over price.

On the demand side, a household’s housing costs can be reduced by helping pay their rent or mortgage. Examples include Housing Choice vouchers, which pay a portion of low-income tenants’ rent, or the mortgage interest tax deduction, which reduces the tax burden

of higher-income homeowners with mortgages. These demand-side interventions help people afford the homes on the market.

Tax credit-funded housing developments, which are publicly subsidized and rented to low-income households at below-market prices, are an example of in-kind housing assistance. They combine supply-side and demand-side interventions, using public resources to increase the supply of homes and charge rents low-income households can afford.

All advanced economies use supply-side and demand-side interventions in their housing markets, and each intervention addresses different needs for different groups. A key distinction between supply policies and demand policies is that housing supply can often be increased at no cost to taxpayers, while demand-side policies typically require public subsidies. Promoting market-rate housing production is the main avenue by which cities can increase housing supply without subsidies.

III. The role of unsubsidized market-rate housing production

There is debate as to whether building market-rate housing helps restrain house price growth. Some even argue that building market-rate homes increases the price of nearby homes, rather than lowering prices through increased competition. Despite these contentions, economic theory and recent empirical research both offer considerable consensus: Building more homes lowers prices in the great majority of circumstances, all else equal (Asquith et al., 2021; Been et al., 2019; Li, 2019; Phillips et al., 2021). It also helps limit the displacement of vulnerable households (Chapple and Loukaitou-Sideris, 2021; Pennington, 2021).

New housing stabilizes rents and home prices via “migration chains.” The majority of people who move into new housing moved there from another home in the same metro area. This creates a vacancy in their previous home. New market-rate housing is relatively expensive compared to other housing on the market, so when someone moves into a new home they usually leave behind a less expensive one. For example, a household might move into a new unit priced at \$1,800 per month and vacate an older unit renting for \$1,400. After the older unit has been cleaned, repaired, and put back on the market, someone else will move into it, creating a vacancy in another, usually even less expensive unit — perhaps \$1,200 per month. The migration chain induced by development of new, relatively expensive housing leads to the availability of older and more affordable housing.

Researchers have tracked migration chains in the US (Mast, 2021) and abroad (Bratu et al., 2021), and they find that for every 100 new market-rate homes that are built, approximately 50-70 households from neighborhoods with median incomes below the citywide median move into a recently-vacated home — a home considerably more affordable than the new market-rate unit. Bratu et al (2021) also track household incomes, finding that roughly 50% of moves in the 5th “link” in the migration chain are made by households below the median household income, and 30% are by households in the bottom quintile of income.

Put another way, building new, unsubsidized, market-rate housing creates vacancies in older, more affordable homes that is functionally similar to building lower-cost housing directly — though without government subsidies. The car market operates similarly: a

consistent supply of new cars, purchased mostly by high-income households, ensures that a steady supply of more affordable used cars is available to lower- and middle-income drivers. When new car production fell during the COVID-19 pandemic, the price of used cars rapidly increased. Similarly, when the supply of new homes is constrained, the price of older homes rises instead of filtering down to less affluent segments of the population.

The overwhelming majority of the US population lives in privately owned, market-rate housing. Most also live in used housing. Because of the high cost and long lifespan of homes, this is unlikely to change — especially without major federal reforms. As such, pragmatic affordability strategies must effectively wield the tool of market-rate housing production. That said, there is also a very important role for subsidized housing, direct housing assistance, and other housing programs and regulations.

IV. The role of subsidies, including subsidized below-market housing

Subsidies can address needs that market-rate housing alone cannot: Housing vouchers and similar assistance programs provide immediate relief and give tenants choice in where to live. As with subsidized below-market units, direct assistance programs typically target those who are inadequately served by the private housing market.

Subsidized below-market housing is rented or sold to those who cannot afford the market price of housing — i.e., the cost to build and operate it profitably. It may include amenities or services addressing the particular needs of its target population (e.g., permanent supportive housing reserved for formerly homeless individuals). Subsidized housing can be constructed independent of the business cycle, which faces booms and busts despite relatively consistent growth in housing demand. Subsidized housing is often built and managed by mission-oriented non-profit developers invested in the success of their tenants. Rather than relying on market forces to identify development opportunities, it can be targeted to areas of greatest need.

Some argue that instead of facilitating market-rate housing production, cities should focus their efforts on subsidized below-market housing. Poor households are most impacted by the high price of housing, and below-market housing benefits them directly. The benefits of market-rate housing — through migration chains, increased tax revenues, and so forth — are indirect. Unfortunately, addressing most housing needs through subsidies is not feasible, especially within the fiscal constraints of local governments.

An average of 2,200 units per year were completed in the City of Reno over the five-year period from 2017 to 2021. The great majority of these were market-rate units. If the city replaced all existing market-rate development with subsidized development, at an approximate cost of \$300,000 per unit, the cost to the public would approach \$700 million per year — nearly the entire city budget. This level of investment is unrealistic for local and state governments and would represent an unprecedented (though welcome) investment at the federal level.

Fortunately, Reno does not need to *replace* its market-rate housing production with subsidized below-market housing or other subsidy programs. As noted above, market-rate housing contributes to rent and home price stability, in addition to tax revenues and other

city priorities (discussed later). Instead, subsidized housing and demand-side interventions complement market-based housing solutions.

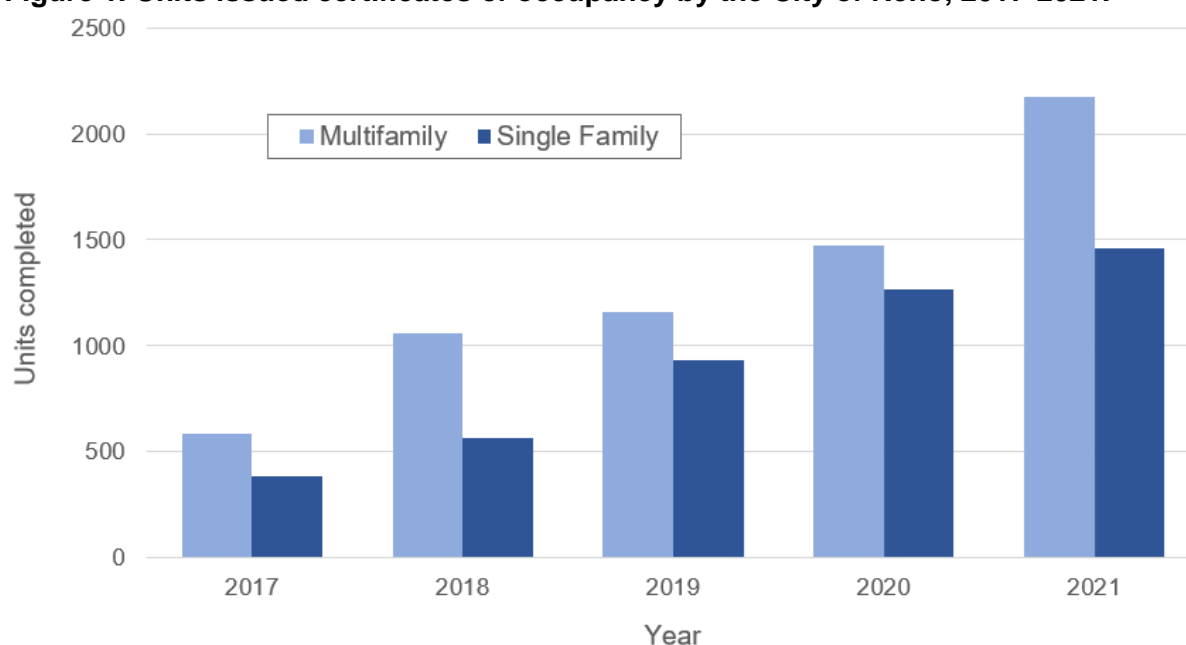
Subsidy programs can address the needs that market-rate housing alone cannot, and market-rate housing helps restrain the rising cost of subsidy programs by keeping rents and home prices in check. If subsidy programs are inadequately funded, some residents will be unable to afford safe, stable housing. If market-based housing production is suppressed, higher-income households will move downmarket into less expensive homes. Poorer residents will have fewer housing choices, and subsidy expenses will rise.

V. Reno needs more housing

According to data from the US Department of Housing and Urban Development (HUD), Reno permitted an average of 3,200 units annually since 2017 — two-thirds of all units permitted in the Reno core-based statistical area.¹ HUD permit data is inconsistent, however, and certificates of occupancy are a better measure of completed units.

From 2017 to 2021, the City issued an average of only 2,200 certificates of occupancy each year (Figure 1). The City's housing stock has grown by approximately 2.0% annually. Promisingly, production rates have been on an upward trend. However, progress may be threatened by rising interest rates and lingering effects of the COVID-19 pandemic.

Figure 1. Units issued certificates of occupancy by the City of Reno, 2017-2021.



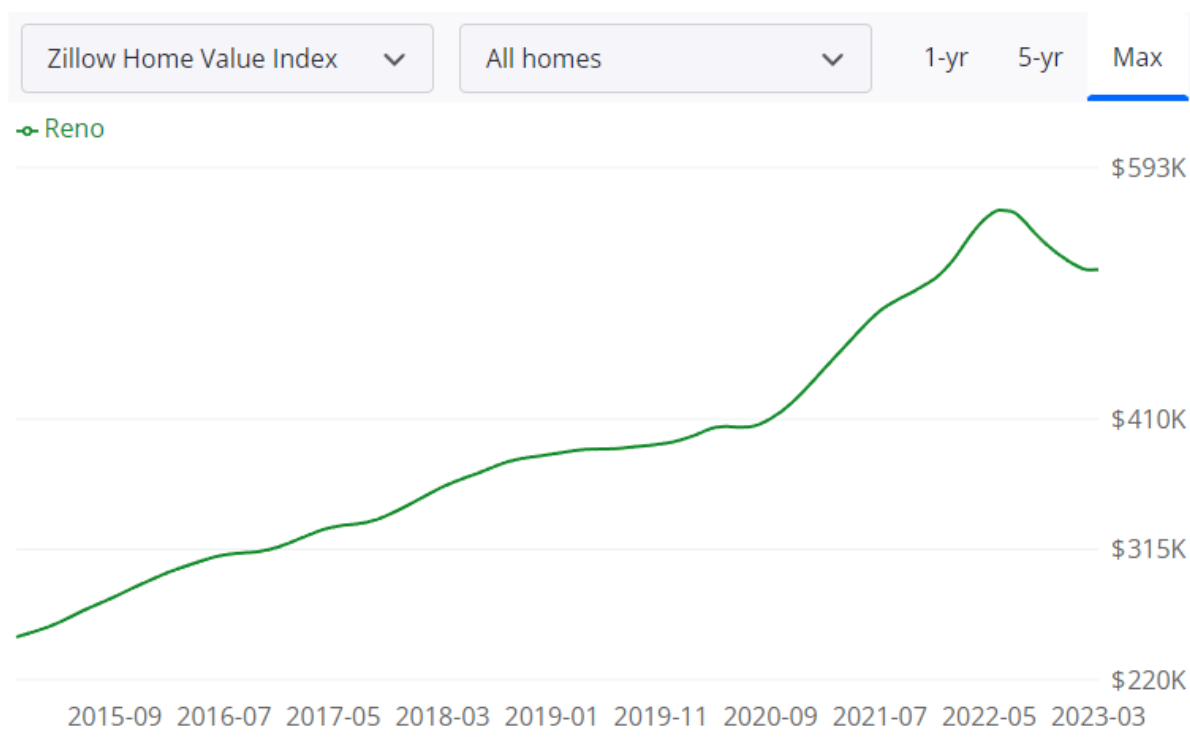
Source: Author's chart produced from City of Reno certificate of occupancy data.

The U.S. Bureau of Labor Statistics estimates that employment in the Reno metro area increased by 13.3% in the five years leading up to 2022, while Census Bureau data shows the housing stock grew by only 10.6%. If the consensus view among researchers and

¹ See US Department of Housing and Urban Development, *SOCDS Building Permit Database*: <https://socds.huduser.gov/permits/>

practitioners is correct, and housing abundance is critical for maintaining affordability, then recent price trends also indicate that Reno (and Washoe County overall) has not built enough homes. According to Zillow, the median home value in Reno in early 2017 was approximately \$320,000 (Figure 2). By April 2023 it was nearly \$520,000, an increase of 63% in six years.

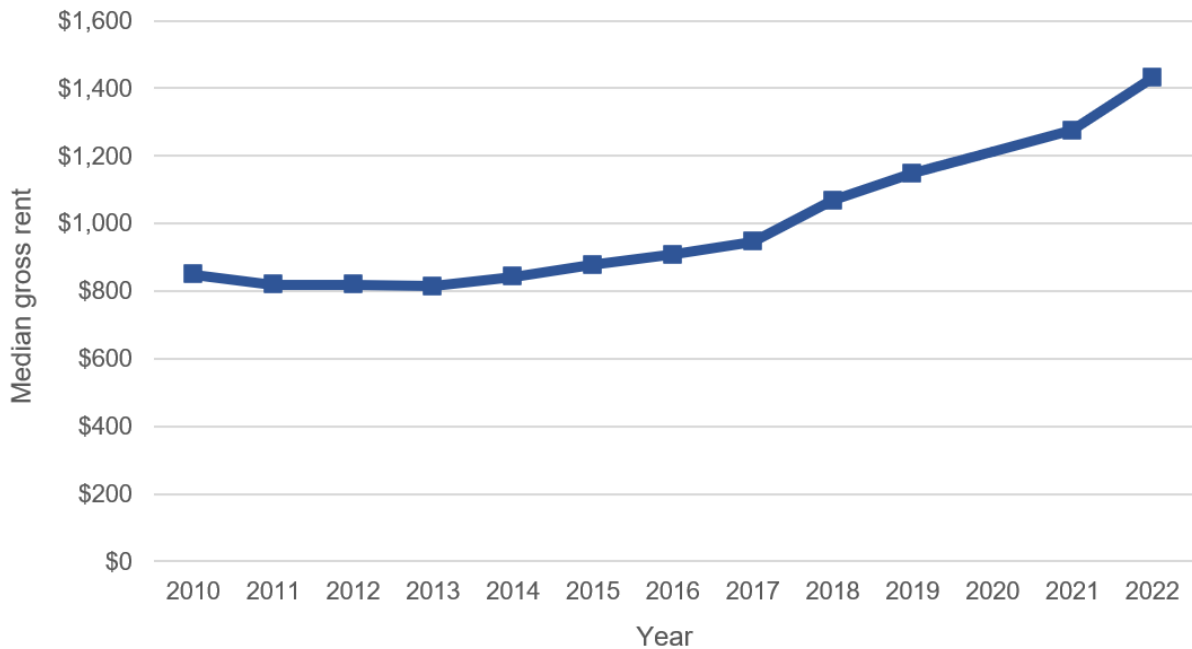
Figure 2. Zillow Home Value Index in the Reno area, 2015-2023.



Source: Zillow.

Rents have also increased substantially. Median rents stabilized in the years following the Global Financial Crisis, but they have climbed since 2013, and the pace of growth accelerated after 2017 (Figure 3). As of 2022 (the latest year Census Bureau data is available), the City's median gross rent was \$1,430 per month. This is an increase of 75% since 2013 and 51% since 2017.

Figure 3. Median gross rent in the City of Reno, 2017-2022.



*Note: Rent data is not available for 2020 due to the impact of the COVID-19 pandemic on data quality.
Source: American Community Survey one-year data.*

Considering Washoe County's exceptional job growth in recent years, this surge in housing demand is unsurprising. To meet existing and future demand, and to stabilize rents and home prices, more housing must be built regionwide. Most will be built by for-profit entities, without subsidies. The availability of local, state, and federal funds will constrain below-market housing production, so these funds must be spent efficiently. In most cases, reducing development cost, delay, and uncertainty will benefit both subsidized and unsubsidized homebuilders — and ultimately Reno residents and businesses.

VI. To meet Reno's ambitious goals, most new housing should be infill

From 2017 to 2021, multifamily housing accounted for 60% of units built in Reno, almost all (95%) in buildings with 5 or more units (Figure 4). The city has maintained a consistent ratio of multifamily relative to single-family production over this five-year period, with 55% to 65% of units in multifamily structures. The share of multifamily units in buildings of 20 or more units increased from 14% in 2017 to 44% in 2021.

Figure 4. Share of units issued certificates of occupancy by the City of Reno in multifamily buildings and buildings with 20 units or more, 2017-2021.

Year	Total units completed	Share multifamily	Share 20 units or more
2017	968	61%	14%
2018	1,620	65%	26%
2019	2,089	55%	14%
2020	2,739	54%	35%
2021	3,637	60%	44%
Average	2,211	59%	27%

Source: Author's calculations from City of Reno certificate of occupancy data.

As total housing production increases, meeting the goals of the Reimagine Reno Master Plan requires that the multifamily share of housing continue growing. The priority should be infill housing — housing built on underdeveloped parcels in accessible job- and amenity-rich neighborhoods.

Reimagine Reno includes eight guiding principles (GPs), and infill housing plays a foundational or supportive role in each:

- **GP 1: Resilient Local and Regional Economy** – Infill diversifies housing options for households at all income levels, preserves affordability, and supports agglomeration which increases economic productivity.
- **GP 2: Responsible and Well-Managed Growth** – Infill uses and improves upon existing infrastructure. It also reduces growth pressures in environmentally sensitive areas and directs growth away from locations that require more driving, which are associated with elevated per-capita greenhouse gas emissions.
- **GP 3: Thriving Downtown and University District** – Infill housing enables a critical mass of residents to support local and regional businesses and can solidify a continuous urban corridor from Downtown to the University of Nevada, Reno.
- **GP 4: Vibrant Neighborhoods and Centers** – Infill increases housing options and viable business types in these locations while helping to maintain affordability for current residents.
- **GP 5: Well-Connected City and Region** – Land use is critical to successful mobility plans, and infill supports investments in transit, walking, and bicycling by increasing the number of people who use these modes compared to car-oriented sprawl development.
- **GP 6: Safe, Healthy, and Inclusive Community** – Infill replaces and upgrades aging housing stock that does not meet modern standards, and it is essential for meeting fair housing goals.
- **GP 7: Quality Places and Outdoor Recreation Opportunities** – Central and inner-ring neighborhoods often lack adequate open space and parks. Infill supports reinvestment in these communities, and public amenities can be built on redeveloped land.
- **GP 8: Effective Government** – The per-capita cost of infrastructure and public services is substantially lower in dense infill communities compared to lower-density, auto-oriented suburban neighborhoods, and infill development often includes infrastructure upgrades that benefit the entire community.

The Truckee Meadows Regional Planning Agency (TMRPA) established Regional Land Use Designations to “promote density and intensity towards the core of the Region.” Mixed-Use (MU) Core is the highest priority, followed by Tiers 1, 2, 3, and RA. However, the 2022 TMRPA annual report indicates that only 14% of total dwelling units are in MU zones, including less than 16% of units built since 2015. Tier 2 accounts for much more than half of the region’s growth since 2015, and less than half of units built in all zones were multifamily homes. Most new housing was built in the City of Reno. While overall trends are promising, Reno’s growth outcomes do not yet align with the goals outlined in the region’s guiding documents, including the Reimagine Reno Master Plan and the Truckee Meadows Regional Plan.

Finally, there is strong evidence that multifamily housing is more undersupplied, relative to demand, than single-family detached housing. Supporting this conclusion is data on housing completions in Planned Unit Developments at the city’s edge: TMRPA data show that there are approximately 32,800 single-family houses approved and unbuilt in Planned Unit Developments and Active Tentative Maps in the City of Reno, but only 3,000 approved and unbuilt multifamily units in approved PUDs and TMs. The inventory of approved multifamily units is nearly exhausted, while there is a large backlog of approved single-family units.

5. Reno's Housing Strengths

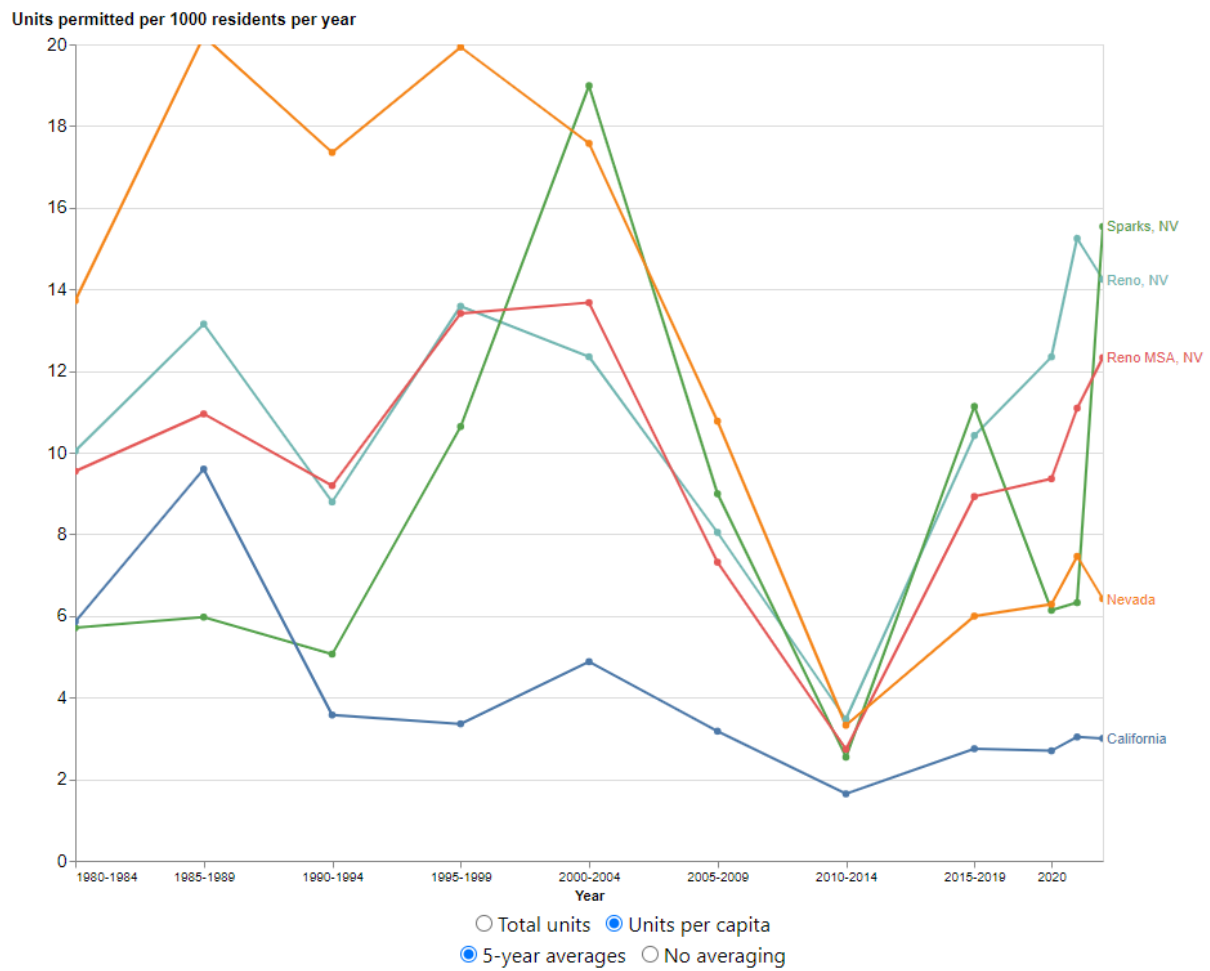
Reno has a number of strengths that city officials and local stakeholders can build upon. At the top of the list is an interest in learning from others. Every city has something to learn from the experience of other places. Being open to these lessons is the best practice on which all other best practices depend.

Unlike most US cities, the City of Reno's zoning code is relatively generous with respect to density, height, and floor area. Less restrictive zones are geographically limited (a deficiency of the zoning *map*), but the code itself serves as a strong foundation thanks to the 2022 update. Relatedly, the City's Master Plan outlines a framework for growth that can be used to advance a variety of key goals, including housing affordability. Bringing municipal policies into alignment with the Master Plan will accomplish a great deal, and the Master Plan compels these reforms.

The project review process within the City is also a strength, with an internal goal — consistently met — of returning comments to project applicants within 10 business days. If other agencies were equally diligent, Reno's project review process could be hailed as a national best practice.

Finally, Reno has a history of welcoming growth and change, as demonstrated by high per-capita residential permitting activity over multiple decades (Figure 5). The region has attracted major employers who will drive future economic growth and diversification as well. While there are burdens associated with growth, it can be channeled toward positive outcomes. With so many US cities facing stagnation or decline, Reno residents are fortunate to be positioned to harness growth — and in the process build a better city for new and old residents alike.

Figure 5. Housing units permitted per capita for selected geographies, 1980-2022.



Data from the US Census Building Permits Survey. Source: *housingdata.app*, created by Sid Kapur.

6. Challenges and Barriers to Affordability in Reno

Every jurisdiction has room to improve its housing policies and programs. Like most cities, the City of Reno, its residents, and its employers would benefit from reform. Unlike most cities, with the exception of many coastal cities, Reno faces population and job growth pressures that are unforgiving of outdated housing policies. Delay will lead to higher prices, worsening affordability, and more difficult trade-offs in the future. The city must act with urgency.

A review of local policies and regulations, interviews with city officials and private sector stakeholders, and a tour of Reno's diverse neighborhoods revealed five priority areas for reform:

- Infrastructure planning and development fees
- Approval streamlining and interagency coordination
- Incremental and “missing middle” infill housing production
- Zoning, development, and code standards
- Displacement protections and housing preservation

This section explains motivations for prioritizing these reform areas and considerations for designing policy. The following section offers recommendations for reform.

A. Infrastructure planning and development fees

Overall, Reno's housing policies remain oriented toward suburban-style tract home development. This is reflected in how the City and other local agencies manage infrastructure requirements for infill housing.

I. Unpredictable and expensive off-site requirements

Large planned unit developments (PUDs) in Reno are typically found in "greenfield" (undeveloped) locations lacking public or private infrastructure. Infrastructure built in these developments — roads, sewer and water, power transmission, etc. — is primarily for the benefit of residents and businesses in the PUD. As such, it is reasonable for developers to bear the full cost of these improvements, which are passed on to residents and businesses.

This is not true of infill housing, but the requirements imposed on infill developers are similar to those for PUDs. Consider a hypothetical proposal to build a 60-unit multifamily project in Midtown. If the City determines that the project will overload a nearby sewer main during worst-case conditions, they may require the developer to upgrade off-site sewer infrastructure as a condition of approval. However, this requirement does not take into account the age, adequacy, or state of repair of the existing infrastructure.

Depending on the age of the sewer main, it may soon need replacement or repair regardless of the added demands of a new multifamily building. It may not meet current engineering standards or may be at risk of failure. Even if the main is only 50 years old, with decades of useful life ahead, replacing it resets the clock on scheduled repairs or improvements. The state of repair of existing infrastructure — and future liabilities associated with it — is not considered in the off-site infrastructure requirements imposed on infill developers.

In the context of infill housing, two major beneficiaries of off-site infrastructure improvements are unaccounted for: the City, which has a repair or upgrade liability removed from its balance sheet (or more accurately, deferred until a much later date), and nearby residents and businesses, who outnumber the residents of infill buildings by a wide margin. The costs of these infrastructure upgrades, however, are borne only by infill developers, and indirectly by the residents of new infill housing.

Infrastructure requirements that shift City liabilities onto developer pro formas impose direct costs that undermine the financial feasibility of infill housing in Reno. These impacts are magnified by the highly variable and unpredictable nature of off-site infrastructure requirements. If a developer cannot know in advance whether a project will be subject to \$0, \$250,000, or \$1 million in off-site infrastructure costs, they must plan conservatively and budget for the highest realistic cost estimate. It is immaterial that most projects will not be subject to the upper-bound estimate. Most developers only build one or two projects every several years, and a single inaccurate estimate can be devastating to their overall business. Consider a project that is profitable with off-site costs of \$250,000 or less, and unprofitable above that threshold. If the average cost is \$200,000 for similar projects but some have had to spend \$600,000 or more, the developer is unlikely to proceed with the project. Volatility and unpredictability results in otherwise feasible projects going unbuilt.

Upgrades and replacements that primarily benefit non-residents and unpredictable off-site infrastructure requirements are two substantial costs imposed on infill developers and not greenfield developers. This disadvantages infill production, with negative consequences for housing affordability in the City of Reno.

To address inequities in off-site infrastructure requirements imposed on infill developers, City budget and planning documents should address the following question: “If no new development are proposed in a given neighborhood, what infrastructure maintenance, replacement, and upgrade expenses should the City expect in the coming years?” Answering this question is a first step to leveling the playing field between greenfield and infill developers, and ultimately providing more affordable and diverse housing choices to residents.

II. Excessive fees relative to long-term contributions of infill housing

Impact and service fees, including road impact and sewer connection fees, impose considerable costs on new housing in Reno. All else equal, these fees put downward pressure on housing production in the city: Researchers have found that impact fees reduce the supply of housing and increase the price of both new and existing housing, often by more than the cost of the fee itself (e.g., \$1.50 in higher prices for every \$1 in fees) (Been, 2005). At the same time, these fees serve a purpose. Development impacts should be mitigated, and schedule- or formula-based fees are preferable to unpredictable fees or mandates.

The goals of impact fees may be served more efficiently or by other means. A few considerations can assist with reform. First, the City should consider the long-term, or “lifecycle” impact of infill housing production on public services, infrastructure, and budgets. Infill development may impose initial costs on par with suburban development, but long-term costs are in most cases lower due to lessened per-capita infrastructure utilization and other benefits of density. If infill housing generates similar revenues to suburban housing but requires fewer services and less infrastructure over its lifecycle, Reno may be undermining its long-term budget prospects — and its affordability — by imposing high fees on infill projects.

Second, some fees may be collected too early. Fees are typically collected when project applications are submitted or when building permits or certificates of occupancy are issued, and the same project may pay different fees at each stage. Funding sources differ by project phase, so fees due at project application are more likely sourced from equity, while those due at certificate of occupancy can be paid with lower-cost debt. After accounting for financing costs, earlier fees impose greater costs than the same fee collected at a later stage.

The City has an interest in collecting fees early, either to pay for services rendered or invest in infrastructure or other public services. However, borrowing costs are significantly higher for developers than public agencies, so payment may be delayed — with interest — in ways that are mutually beneficial to the developer and City.

B. Approval streamlining and interagency coordination

Stakeholder interviews revealed frustration with the entitlement and permitting process. Issues raised by private sector stakeholders include long and unpredictable review timelines, inconsistent application of regulations and guidelines, and a lack of urgency within some agencies that bear responsibility for housing approvals, certifications, and connections. Slow, uncertain, and uncoordinated review processes are an ideal target for reform because they benefit no one: There are trade-offs associated with impact fees and eviction protections, for example, which must be weighed carefully; inefficient review processes only expend valuable staff time and add cost and delay to new housing.

The City of Reno's commitment to returning comments to project applicants within 10 business days is exceptional. Unfortunately, its impact is diminished by other agencies, businesses, and jurisdictions involved in the housing approval process that lack similar standards, and by regulations and processes that entail considerable discretion, sometimes leading to conflicting guidance. Further, discretionary review can be especially detrimental to smaller-scale infill housing projects, which are typically built by smaller and less experienced development firms. The City and its regional partners should prioritize reforms to streamline and standardize their review processes.

I. Training and project review practices that result in delay and higher costs

Private sector and some public sector stakeholders are concerned that staff who review development applications sometimes lack experience and apply regulations inconsistently. Some of these challenges relate to staff retention, which is not addressed in this report. There may be opportunities to improve training and review practices to encourage more consistent interpretation of regulations and guidelines. The City should also consider areas where subjective judgment or discretion may be curtailed, or eliminated entirely, as discussed below.

II. Over reliance on discretion in housing approvals

Discretion supports context-sensitive review. It can provide flexibility for unique site conditions or project characteristics and facilitate input from city officials and community members. At the same time, discretion also introduces uncertainty and delay (Manville et al., 2022). Discretionary approvals may also contribute to distrust in government over concerns of corruption and backroom dealing (Manville and Osman, 2017).

At the staffing level, excessive discretion can have several negative consequences. First, discretionary review requires considerable staff time which could be spent on other tasks, such as long-range planning or community engagement. Second, it adds complexity to the review process such that employees require additional training and experience to perform their work capably. Limited staff resources and inconsistency in the application of standards, regulations, and guidelines then has downstream impacts on housing production and affordability.

Discretionary approval has become common practice in high-cost, supply-constrained cities across the US. But as this practice comes under greater scrutiny, many jurisdictions are reforming processes to permit more housing ministerially, or “by-right.” The City of Reno would benefit from similar reforms, especially when applied to smaller and mid-sized multifamily infill housing.

III. Lack of regional and interagency coordination

The City has taken meaningful steps to streamline its approval processes and collaborate with the development community, but other jurisdictions, agencies, and businesses have been slower to act. Public and private sector stakeholders both cited significant challenges securing necessary sign-offs from organizations including the Truckee Meadows Water Authority (TMWA), NV Energy, and Washoe County Health District. Housing affordability is not under the purview of these organizations, yet their actions impact affordability by increasing project delay, risk, and cost.

The City of Reno has little direct influence over non-City agencies, jurisdictions, and businesses, but increasing infill production and affordability depends in part on their cooperation. These non-City entities must take responsibility for their role in the housing crisis. Alternatively, state or regional governments must mandate increased cooperation.

C. Incremental and “missing middle” infill housing production

“Missing middle housing,” a term popularized by Dan Parolek of Opticos Design, refers to everything from accessory dwelling units to low-rise (3-4 story) apartment buildings. It is “missing” because while approximately 20% of all housing built in the mid-20th century was of this “middle” density, it has since declined. Missing middle accounted for less than 10% of homes built in the 1990s and 2000s and under 5% in the 2010s (Parolek, 2020).

I. Few options except detached single-family houses and larger multifamily buildings

Missing middle typologies are also largely missing from Reno. HUD reports that from 2015-2021 the city permitted approximately 20,070 units of housing, 42% in single-family buildings and 58% in multifamily. Only 3% of units were in 2–4-unit buildings, however — the remaining multifamily units were in larger developments. While many were still solidly “middle” with 5 to 19 units, Reno would benefit from a substantial increase in middle-density housing production, with a greater diversity of choices including attached houses (such as townhouses), accessory dwelling units (ADUs), and 2–4-unit buildings.

Missing middle housing has several valued characteristics. It is often the most affordable housing on the market, accessible even to lower-income households. The median income of households living in single-family detached housing in the Reno metro area is \$105,000. It is \$60,000 for those living in two-family buildings and \$56,000 in 3-4 family buildings. Single-family attached housing is also considerably more affordable; occupants have a median household income of \$71,000 (American Community Survey, 2021). Affordability is by design: missing middle buildings distribute land costs among multiple households, provide smaller units on average than detached houses, and avoid the major cost drivers associated with higher-density development such as above- or below-ground parking, concrete or steel structures (and more specialized construction workers), and elevators.

The height, setbacks, and design features of missing middle housing are typically compatible with existing structures — this is sometimes referred to as “gentle density.” It also adds minimally to burdens on existing infrastructure and public services. Residents can enjoy some qualities of single-family detached housing, such as increased privacy and individualized amenities, at a much more accessible price. Attached or detached homes on small lots can be sold as “fee simple” ownership properties, eliminating property management or homeowner’s association fees.

II. Limited developer and contractor pools

Encouraging missing middle housing can also strengthen the local developer and construction labor market. On the developer side, large projects require considerable experience, capital, and relationships, whereas local residents and partnerships can pursue smaller-scale projects. Cities that make it easy to build missing middle housing, especially accessory dwelling units, have seen entirely new industries develop with firms specializing in these housing typologies, in addition to women and people of color entering a development

industry traditionally lacking gender and racial diversity. Homeowners are also empowered to help solve the housing shortage.

Developers interviewed for this report noted that the pool of local contractors has shrunk since the Great Recession, contributing to delays and rising costs. Making it easy to build ADUs and small multifamily housing can lower the barriers to entry for contractors and construction workers and provide a steady stream of work in an otherwise volatile industry. Importantly, missing middle housing often rents and sells at prices affordable to construction workers and other tradespeople, helping them stay in the region and continue building the region's future.

D. Zoning, development, and code standards

As in most cities, development standards in Reno generally reflect the past 100 years of US housing policy and urban planning, during which suburban housing and cars were prioritized at the expense of urban neighborhoods, businesses, and residents. The Reimagine Reno Master Plan helped to re-prioritize infill housing and its various benefits, but more should be done.

I. Parking mandates raise housing prices and encourage more driving

Most cities have minimum parking requirements, but due in large part to the pioneering work of UCLA professor Donald Shoup they are increasingly scrutinized for their impact on housing prices and other economic, environmental, and social harms.

This report focuses on the impact of infill housing production and housing prices, but it must be said that parking mandates do not merely balance the parking needs of residents and businesses against the additional cost of building and operating parking. Researchers find that buildings with more parking cause residents to own more cars and drive more frequently (Millard-Ball et al., 2022), and that cities consistently require more parking than residents use, with an average of roughly 20 to 45 percent of spaces empty during peak utilization (Durning, 2013; Metro Vancouver, 2012; Thigpen, 2018). Excessive minimum parking requirements increase automobile dependence, traffic congestion, collisions resulting in injury and death, pollution and other negative health outcomes, and greenhouse gas emissions. These outcomes are contrary to the City of Reno's stated goals.

Minimum parking requirements impact infill production and housing affordability in several ways. Surface and above-ground parking structures add an average of \$20,000 to \$30,000 per space to the cost of development, and costs can easily exceed \$50,000 per space in below-ground garages and projects with difficult site conditions or other challenges (Litman, 2022). Two garage parking spaces would typically add at least \$50,000 to the cost of a condo unit — upwards of 15% of its total cost, or \$300 to \$400 per month in additional rent or mortgage costs.

In a building with 100 parking spaces, roughly 30 or 35 spaces may be empty at peak hours. This mandate is especially burdensome to developers of low-income housing, where residents are less likely to own vehicles (Blumenberg and Pierce, 2012). Using similar parking standards for infill and suburban housing also disadvantages infill housing. Suburban homes can provide less expensive surface parking while infill projects typically cannot, and infill homes are often smaller and have fewer occupants on average, including fewer drivers.

Minimum parking requirements also increase costs indirectly. High construction costs may render lower-priced housing projects infeasible, while higher-priced projects move forward but leave car-free or car-lite households with limited options. And when the "building envelope" is strictly defined by height, floor area, and setback requirements, parking comes at the expense of living space. Off-street parking is oversupplied amidst undersupplied housing.

Parking mandates are especially detrimental to building conversions and other forms of adaptive reuse. They often require demolishing existing structures to accommodate parking, which is often economically infeasible and degrades the historic character of older, more walkable neighborhoods. Parking mandates for adaptive reuse projects frequently lead to vacant storefronts and buildings.

II. Building codes prohibit more efficient, higher-quality infill housing

Cities facing affordability challenges usually focus on reforming zoning and development standards such as parking minimums and height limits. This is for good reason: More than any other policy, these regulations are the “binding constraint” preventing more affordable and diverse housing choices in most urban areas of the US. But as cities make positive strides on zoning and development standard reform, other code standards merit greater attention.

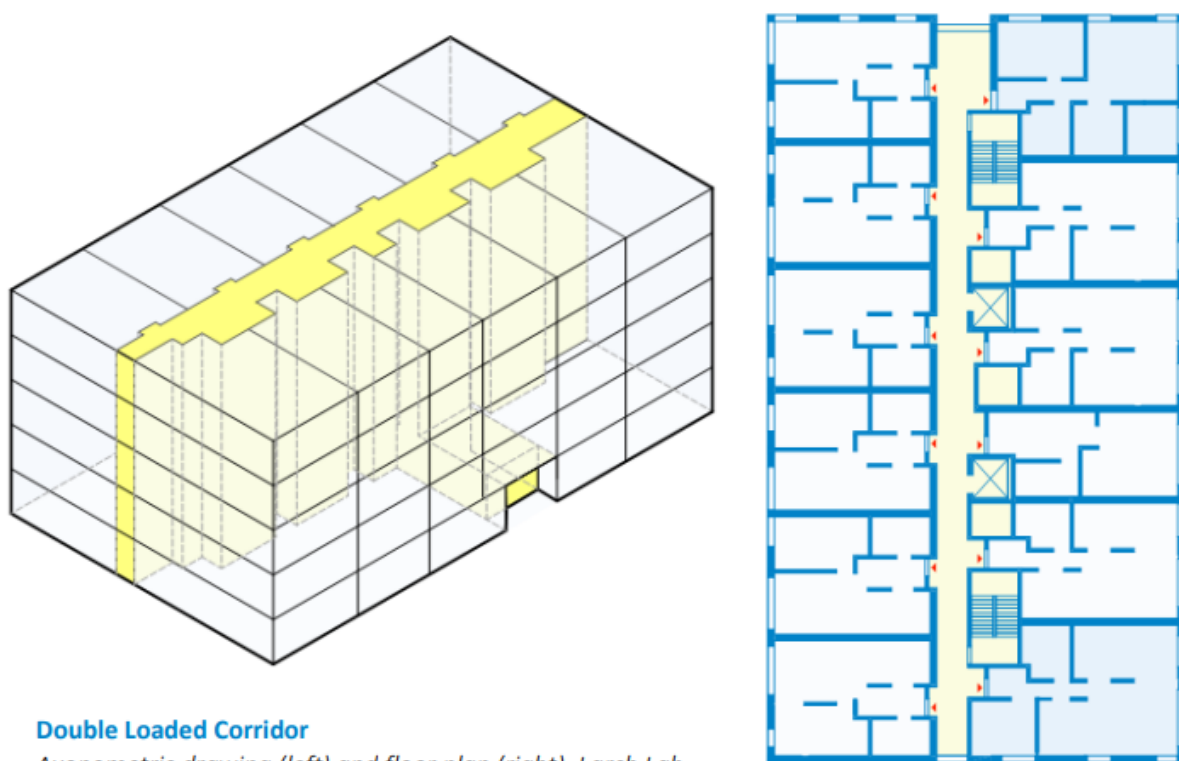
Many observers note that new multifamily housing “all looks the same,” whether it’s found in Reno, NV, Seattle, WA, Sacramento, CA, or Boise, ID. Buildings are boxy, they are very large by historical standards, and most units include fewer than three bedrooms — family-sized units are relatively rare. There are many reasons for this shift, and one is the two-stairwell egress requirement included in most US building codes. Architect and Larch Lab founder Michael Eliason has been instrumental in efforts to reform this policy to allow single-stair buildings in more of the US, and this section and the recommendations that follow draw heavily on his 2021 report to the City of Vancouver.²

Most building codes in the US require two stairwells in low- and mid-rise multifamily buildings, and this results in a floor plan typology known as the “double-loaded corridor.” This design places dwelling units on each side of a long, central corridor, much like many modern hotels (see Figure 6). This is the most efficient way to accommodate two stairwells separated by some minimum distance specified in the building code. It results in “deep” buildings (the distance from the front of the building to the back) that smaller parcels cannot always accommodate, and is moderately inefficient, devoting about 13% of total floor area to non-revenue-generating uses.

The two-stair requirement makes it difficult, and sometimes impossible, to design multifamily housing for smaller parcels, and it increases the cost of most other projects. According to architect Michael Eliason, this requirement adds approximately \$28,000 per floor to the cost of development, or as much as \$14,000 per unit. It also wastes materials on oversized construction, limits opportunities for cross-ventilation, and produces building designs with small, inefficient units.

² See Larch Lab, *Unlocking livable, resilient, decarbonized housing with Point Access Blocks*: https://www.larchlab.com/wp-content/uploads/2022/01/Eliason_CoV-Point-Access-Blocks-report_v1.2.pdf

Figure 6. Illustration of a two-stair, double-loaded corridor building.



Multiple-stairwell requirements result in double-loaded corridor floor plans, reducing dwelling unit quality and increasing costs. (Source: "[Unlocking livable, resilient, decarbonized housing with Point Access Blocks](#)," by Larch Lab for the City of Vancouver, B.C.)

Critically, safety is the stated purpose of two-stair requirements, but there is no evidence they improve safety outcomes. In fact, fire-related death rates are substantially higher in the United States, where single-stair multifamily buildings are generally prohibited, than in the countries where such buildings are common, including Austria, Germany, Switzerland, Italy, and the U.K. (US Fire Administration, 2011).

III. Mixed-Use zoning may be too generous in some locations, discouraging land transactions and redevelopment

Development standards are very generous in the City's Mixed-Use Urban (MU) and Mixed-Use Suburban (MS) zones, which are found mostly in the urban core and Midtown/Virginia Street corridor. The MU and MS zoning districts allow unlimited density, floor area, and height (requiring discretionary approval for buildings taller than 85 feet and 55 feet, respectively). Paradoxically, this may discourage some development activity.

In theory, developers can build 500 feet tall, 300-unit apartment towers on many of these parcels (subject to residential adjacency standards and parcel assembly). If the value of multifamily-zoned land is approximately \$30,000 per buildable unit, the owner of a large MU-zoned parcel might expect an offer of \$9 million to sell (\$30,000 multiplied by 300 units). Developers, however, may only forecast enough demand for a 65- or 85-foot building, built from wood and a concrete podium rather than the steel or concrete structures required of taller buildings. Rents in Reno, while high, are too low to justify constructing 500-foot or even 200-foot residential towers in most cases. An 85-foot-tall building might accommodate only

100 units on the MU-zoned parcel, not 300 units, and developers would therefore assign the property a \$3 million value, far less than the landowner.

Large discrepancies between the maximum *potential* value of land (determined by zoning capacity) and its current market value (determined by housing demand and development costs) may at times cause friction in the land market. Selling to a mid-rise developer at a lower price forecloses the possibility of selling at a much higher price in the future. Landowners may delay selling, waiting for housing demand and land values to rise.

As fewer parcels transact, fewer new homes are built, accelerating price and land value appreciation; the landowner's plan to wait for higher prices becomes a self-fulfilling prophecy. Minimizing the discrepancy between zoning capacity and market realities may incentivize the turnover of underutilized land that can be redeveloped into infill housing.

Reno is in the early stages of urbanization, and as such it should prioritize low- and mid-rise development rather than high-rise projects. At a maximum height of six or seven stories, full build-out of the MU and MS zones would add tens of thousands of homes to the City's stock, possibly hundreds of thousands. Developing more parcels to mid-rise densities — rather than fewer to high-rise densities — will make the urban core feel more “filled in,” knitting together more gaps in the urban fabric. It will also distribute infrastructure investments across more of the city and create more ground-floor retail and commercial space.

E. Displacement protections and housing preservation

Without substantially increasing infill housing production, continued job and population growth in Washoe County will lead to rising home prices and rents, placing a heavy burden on renters, homebuyers, and local businesses, as well as the city's budget and services. But housing unaffordability and insecurity are multifaceted problems, and supply alone will not solve them. Housing abundance is necessary, but not sufficient, for housing affordability. Further, affordability should not be the City's only goal; it should also promote housing security and stability. Other policies, programs, and regulations are needed to support these goals and address concerns about the potential downsides of increased homebuilding.

I. Perceptions that new housing will not benefit long-term residents, or may harm them

Every growing city struggles to balance the interests of new and old residents, including their need for housing. At one level, some are concerned that new housing, especially housing built for profit and rented or sold at market prices, will not improve affordability. As discussed in the introduction, this perception, while understandable, is mistaken and refuted by considerable empirical evidence. Building more homes, including market-rate homes, stabilizes rents and home prices at the regional, city, neighborhood, and block level.

Some also worry that new housing only benefits people who currently reside in another city or state. This too is mistaken. In metro areas across the country, roughly 60 to 80 percent of households who move into newly built homes originate from the same metro area as the new house. The Reno metro area is in fact exceptional in this regard: In 2019, approximately 100% of the households moving in the past year into housing built in 2018 or 2019 came from within the Reno metro area. Twenty-five percent of moves into a home in the Reno metro area were by people from another metro, but all were into housing built 2017 or earlier³ (American Community Survey one-year data). Even if this weren't so, the absence of new housing will not deter households from moving to the region: Any household that can afford new housing can also afford older housing and will likely compete for the limited supply of existing homes instead.

A third concern is sometimes justified and may warrant intervention. When redevelopment is both rapid and concentrated, neighborhood character may change so quickly that the "demand effect" of new amenities, which puts upward pressure on prices, outweighs the "supply effect" of new housing, which pushes prices downward (relative to a scenario in which fewer homes were built). Most researchers have found that supply effects exceed demand effects, but the question is not settled and additional research is needed. As a protective measure, this concern can be addressed through proactive policymaking.

³ Due to inherent sampling error, the actual number of households that moved into new housing in the Reno metro from a different metro area in 2019 is almost certainly greater than zero. However, microdata from the 2019 one-year American Community Survey include surveys of 76 heads of household who moved to Reno from another metro area. At least a small number of households moving from other metro areas into new housing would appear in the data if they accounted for a large share of occupants.

Ensuring that neighborhood residents can afford to stay, even if it changes over time to become more attractive and popular, is a major challenge in urban planning. Investing in a community should not displace the people who call it home. This principle is served, in part, by protecting households against excessive rent increases or eviction without cause. Protections help assure residents, especially vulnerable tenants, that change will not come at their expense.

II. Misalignment between immediate housing needs and delayed impact of infill housing production

Most experts agree that Housing First is the most effective long-term strategy for reducing homelessness. This approach works by providing housing to unhoused individuals first, then working with service providers to address other challenges that may lead individuals back to homelessness. However, most cities have too few supportive housing units to accommodate every unhoused person, and supportive housing is not the best option for everyone. Cities must employ other tools too, including shelters, transitional housing, rent assistance, case work and emergency services, and so on. Even jurisdictions planning to build more supportive homes and deploy other long-term strategies must also address the immediate needs of unhoused and at-risk residents *now*.

The same logic applies to the broader housing market. The benefits of homebuilding accrue slowly. Entitling and permitting homes requires months, and building can take years. Meanwhile, the needs of residents and demands of the market can shift abruptly, as the COVID-19 pandemic painfully demonstrated. Homebuilding is a long-term and essential solution to the housing crisis, but it is partial, and not a substitute for protecting and assisting those with more immediate needs.

The City of Reno is constrained by state law, but its housing affordability strategy will be incomplete without stronger tenant protections.

City officials should also proactively regulate short-term rentals (STRs), found on platforms Airbnb and Vrbo. Like homebuilding in reverse, STRs can undermine affordability by removing units from the long-term rental and owner-occupied market.

Researchers have found that house prices and rents increase as the STR share of the housing market grows (Sheppard and Udell, 2016; Horn and Merante, 2017). Correspondingly, prices decline when local jurisdictions limit short-term rentals (Koster et al., 2018). While these studies focus on the existing stock of housing, not development, an unregulated STR market can generate concern that new housing will not be used for long-term residency, and therefore will not support the city's affordability goals.

Here it is important to distinguish between two STR types: on one hand there are infrequent (e.g., a homeowner renting out their home while vacationing over a holiday break) or partial (e.g., a room in a larger house) short-term rentals. These should have a small impact on the housing supply and may even encourage more efficient use of the existing housing stock. On the other hand there are units frequently and fully-occupied as STRs, including homes purchased by investors and rented short-term year-round. The City should be most concerned with the latter.

STRs do not appear to be overrepresented in the City of Reno at this time, though as a subjective matter public officials and residents may disagree. In any case, the City should regulate STRs before challenges arise, not after. According to the National League of Cities:

“It is much easier to limit the spread of short-term rentals before they have proliferated than it is to retroactively remove them from the market. Establishing regulations also becomes increasingly controversial as more stakeholders have a vested interest in seeing them maintained.”⁴

Many people’s livelihoods will be threatened by regulation following the proliferation of STRs. Regulating them proactively can help STR operators and the City avoid a difficult confrontation in the future. Further, proactive local regulation may forestall state regulations that do not adequately meet the City’s goals, as seen in Clark County with the recent passage of AB 363.⁵

⁴ See National League of Cities, *Short-Term Rental Regulations: A Guide for Local Governments*: <https://www.nlc.org/wp-content/uploads/2022/05/Short-Term-Rental-Regulations.pdf>

⁵ See Tabitha Mueller, Nevada Independent, *The Indy Explains: Nevada’s new short-term rental law and what it means for companies such as Airbnb*: <https://thenevadaindependent.com/article/the-indy-explains-nevadas-new-short-term-rental-law-and-what-it-means-for-companies-such-as-airbnb>

7. Recommendations

Reno's housing affordability is at risk due to job growth, population growth, and demographic trends such as shrinking household sizes and an aging population, but these trends also present opportunities: Growing cities can harness investment for the benefit of current and future residents, while stagnating or shrinking cities have many fewer options. The City can channel this growth into increased housing diversity, more resilient infrastructure, a more effective and efficient transportation network, a healthier municipal budget, and new amenities for residents, employers, and visitors. If Reno does not adequately plan for a growing and more urban population, it can expect rising housing cost burdens and homelessness, excessive sprawl and pollution, and declining quality of life for many residents. Reno's future depends on the mix of policy reforms it adopts in the coming years. Building on the challenges and barriers identified in the previous section, this section offers a set of reforms City officials may consider for improving housing production, choice, and affordability.

A. Infrastructure planning and development fees

I. Update capital plan with more comprehensive infrastructure repair, replacement, and upgrade schedule, and use to compensate developers for off-site infrastructure requirements on a pro rata basis

Primary recommendation(s)
<ul style="list-style-type: none">• Develop a detailed maintenance plan including the age, condition, and planned replacement or upgrade date for infrastructure types the City often requires developers to replace or improve as a condition of project approval.• Use this plan during the project approval process to determine developers' pro rata contribution toward off-site improvements, splitting costs between the City and developers.
Secondary recommendation(s) and other considerations
<ul style="list-style-type: none">• In lieu of collecting only a pro rata contribution from developers, have them pay the full cost of off-site improvements and be reimbursed at a later date, e.g. with rebates on utility user fees or other local taxes or fees.• Require developers to pay a pro rata contribution toward future infrastructure improvements when no (or very limited) off-site infrastructure investments are required by the City.

The City of Reno's Capital Improvement Plan extends to fiscal year 2030, but it does not clearly delineate maintenance and repair priorities for basic infrastructure, including sewer and storm drain facilities accounting for 81% of planned expenditures. The CIP lacks public data on the age, condition, utilization relative to capacity, and replacement/upgrade schedule for the City's infrastructure. It cannot gauge the appropriate contribution of infill developers to off-site improvements without this data. Infill builders are responsible for replacing degraded infrastructure currently serving older homes and businesses, raising the cost of construction and reducing the feasibility of infill development.

The City should direct the Public Works department to develop a detailed maintenance plan that includes the age, condition, and estimated replacement/upgrade dates and costs for infrastructure types the City often requires developers to replace or improve as a condition of project approval. This will ensure that the costs of replacing and upgrading infrastructure are fairly divided between infill builders and the City, leveling the playing field between infill and sprawl development.

With this data on hand, the Public Works department can calculate each party's responsibility vis-a-vis off-site improvements as entitlements and permits are processed by the City. City officials should use the detailed maintenance plan to determine developers' pro rata contribution toward off-site improvements. Alternatively, developers may be required to pay the full cost of off-site improvements and be reimbursed at a later date, e.g., with rebates on utility user fees or other local taxes or fees.

Here's how this approach might work. Imagine an 80-year-old sewer main is scheduled for replacement in 20 years and replacing it will cost \$300,000. In this scenario the City should bear roughly \$240,000 of this cost and the developer \$60,000. (In other words, the main has 20 years of its useful life remaining, or 20%. The developer is accelerating the replacement schedule and is responsible for the unrealized useful life of the existing infrastructure — in this case, $20\% \times \$300,000$ equals \$60,000.) The new housing project places its own demands on the infrastructure, so in this scenario the developer's contribution may modestly exceed \$60,000.

The City may bear a larger share of the "cost above replacement" if it requires the developer to upgrade the facilities, especially if the City planned the upgrade irrespective of adjacent development. Conversely, if the City doesn't require the developer to upgrade or replace off-site infrastructure (or requires very limited investments), the developer should instead pay a pro rata contribution toward the future upgrade or replacement of existing infrastructure their project relies upon. This has two critical benefits: increasing predictability for both the City and developers and establishing a new source of revenue the City can use for its pro rata share of off-site infrastructure requirements. (Existing infrastructure may not require an upgrade or replacement for decades, so developers' contributions can be spent on more immediate needs in the intervening time.)

It is important to acknowledge that this approach entails considerable short-term costs to the City. Surveying underground infrastructure is expensive, and City officials would understandably prefer that developers pay for upgrades that benefit the general public and reserve public funds for other purposes. However, surveying and cataloging infrastructure may pay long-term dividends by proactively identifying maintenance and repair needs before they develop into more costly problems (which are also more likely to inconvenience residents and businesses). These benefits would accrue even to Reno neighborhoods with minimal development. The City may also protect its budget by prioritizing this data collection effort in neighborhoods targeted for redevelopment, such as Midtown and Downtown.

Similarly, while a pro rata reimbursement program for off-site upgrades would be costly, the current approach carries its own hidden costs. In particular, as housing prices rise the City will be subject to increasing downstream impacts, most notably homelessness. By discouraging development in its urban center, the City also loses out on future tax revenues that could offset some or all of these short-term costs (discussed further below).

II. Adjust impact fees to reflect lifecycle costs and revenues from new housing

Primary recommendation(s)
<ul style="list-style-type: none">• Develop an estimate of short- and long-term government revenues and expenses associated with new housing and adjust fees to better reflect “lifecycle” costs, evaluating the fiscal impacts of multifamily infill housing and detached, suburban-style housing separately.• For fees that are not fully eliminated, consider charging fees proportionate to square footage rather than unit count.
Secondary recommendation(s) and other considerations
<ul style="list-style-type: none">• To avoid near-term budget shortfalls, consider maintaining current fee rates and reimbursing developers over time through rebates on local taxes or fees.

Chapter 1.08 of the Reno administrative code allows the City to reduce or eliminate impact fees, building permit fees, and sewer connection fees on deed-restricted affordable housing projects. Imposing fees on affordable housing reduces the number of homes that can be built, and because the City is committed to maximizing the efficacy of its affordable housing funding, it voluntarily bears the cost of these fee reductions. It should apply a similar logic to infill housing of all types: While reduced fees incur an upfront cost, increased infill housing production will pay dividends in the long run through increased property taxes, reduced per capita service and infrastructure costs, and agglomeration effects that strengthen the local economy (Litman, 2022).

The City should undertake an analysis of short- and long-term government revenues and expenses associated with new housing. It should evaluate the fiscal impacts of multifamily infill housing and detached, suburban-style housing separately. The findings should inform impact, permit, and sewer connection fee schedule changes. Non-City agencies and jurisdictions should also be encouraged to revise their fee schedules to reflect long-term or “lifecycle” costs associated with new housing.

Regarding revenues, this analysis should account for property taxes collected and distributed to the City and other jurisdictions (including school districts), licenses and fees of all kinds, special revenue funds, and other funding sources likely to grow alongside Reno’s housing stock and population, as well as revenues deriving from construction employment in the City and region. On the expenditures side of the ledger, the City should consider upfront costs for new infrastructure (taking into account the repair, replacement, and upgrade schedule discussed in the previous recommendation) and recurring public service costs including schools, police, fire, libraries, parks, and transit. The analysis may also consider the unique demographics and socioeconomic characteristics of infill housing residents, who may, for example, have smaller households and fewer children, therefore incurring fewer public costs on a per-capita or per-household basis.

The Los Angeles Business Council Institute undertook a basic version of this analysis for the City of Los Angeles, finding that each new market-rate home contributes substantial one-

time and recurring revenues in excess of public service and infrastructure costs.⁶ A similar analysis for the City of Ottawa, Canada found that the cost of providing services to new suburban homes exceeds revenues from property taxes and water bills by \$465 per person per year, whereas infill homes contribute a surplus of \$606 each year per capita.⁷ These analyses can inform a similar study for the City of Reno.

Reducing or even eliminating some fees would impose a short-term cost, but City officials may find it improves long-term fiscal resilience if it leads to a sustained rise in infill housing production. To avoid near-term budget shortfalls, the City may consider maintaining current fee rates and reimbursing developers over time through rebates on local taxes or fees. This would stretch the cost of fee reduction over a longer period and allow the City to invest fee revenues earlier.

On average, larger dwelling units have more household members than smaller units and therefore impose greater demands on infrastructure and public services. For fees not fully eliminated per the recommendations above, the City should consider charging fees proportionate to unit size (measured by square footage). Fees are assessed on a per-unit basis under current policy, which puts smaller units at a competitive disadvantage due to lower rents and sale prices. This may encourage overproduction of larger, more expensive units relative to smaller, more affordable units. While assessing impact fees by unit count is common practice, cities are increasingly adopting fees based on unit size, including Amherst, NH⁸, and Oklahoma City, OK⁹.

III. Defer fees to issuance of certificate of occupancy where possible

Primary recommendation(s)
<ul style="list-style-type: none"> • Allow deferral of multifamily infill housing impact fees until the City issues a certificate of occupancy.
Secondary recommendation(s) and other considerations
<ul style="list-style-type: none"> • “Lock in” the fee amount when project applications are submitted or building permits are issued. • Consider escalating the locked-in fee amount in accordance with local inflation rates (general or industry-specific) or borrowing costs. • Fees used to defray staff review costs should not be eligible for fee deferral due to increased odds of nonpayment.

⁶ See *Housing Pays Report: Capturing the economic and fiscal benefits of increased housing production in L.A.*, Los Angeles Business Council Institute: https://drive.google.com/file/d/1aTUwdk-D-kQNLVQ_pcA69fgNYZsNztt5/view?usp=share_link

⁷ See Kate Porter, CBC News, *Suburban expansion costs increase to \$465 per person per year in Ottawa*: <https://www.cbc.ca/news/canada/ottawa/urban-expansion-costs-menard-memo-1.6193429>

⁸ See *Amherst Impact Fee Schedule*: https://www.amherstnh.gov/sites/g/files/vyhlf4116/f/pages/amherst_impact_fee_schedule_bos_approved_2022.02.07_0.pdf

⁹ See *Oklahoma City Development Impact Fees*: <https://www.okc.gov/departments/development-services/development-impact-fees>

Developers pay fees from one of two sources: equity or debt. Fees sourced from equity must be repaid to investors at their target rate of return, which may be 10% or more per year, compounding. For illustrative purposes, this means a developer who pays a \$100,000 fee before receiving their building permit, finishes construction in two years, then refinances one year later will owe their investors \$133,000 (10% compounded annually for three years). Earlier fees and longer project timelines both increase financing costs, all else equal. A \$100,000 fee due at certificate of occupancy can be paid mostly or entirely with debt, at an interest rate of roughly 6%.¹⁰ This debt might be paid as soon as a year later at a total cost of \$106,000. As with other fees and requirements, these higher carrying costs have negative implications for housing production and prices.

The City of Reno should allow deferral of any fees tied to the construction of multifamily infill housing. For simplicity, the fee amount may be “locked in” when project applications are submitted or building permits are issued, and fees should be due when the certificate of occupancy is issued. This approach entails a modest developer subsidy: The City must either borrow in order to spend the fees at the earlier date, or spend the fees later, after inflation has somewhat eroded their value. The City may also consider escalating fees from their locked-in basis using the local inflation rate, a sector-specific inflation rate tied to construction costs or similar metrics, or agency borrowing costs.

An analysis by the Mountain Housing Council of Tahoe Truckee found that fee deferral could reduce development costs by \$2,225 to \$3,729 per unit¹¹, and another by the San Diego Housing Commission estimates savings of \$2,000 to \$6,000 per unit¹². San Diego first approved a fee deferral program in 2009 and renewed it every two years before making it permanent in 2016 (Conaughton, 2016). Phillips (2021) provides additional recommendations for fee deferral program design.

Fees that offset the cost of planning entitlements and building permit approvals should not be eligible for fee deferral because proposals reviewed by City staff do not always lead to completed projects; deferring payment of these fees may in some cases lead to nonpayment. Projects that pull permits and begin construction, however, are nearly certain to be completed and the city can withhold certificates of occupancy or other necessary approvals until they are paid.

¹⁰ Note: Equity returns on investment and interest rates on debt are based on typical levels seen throughout most of the post-Great Recession period, excluding 2022.

¹¹ See Mountain Housing Council of Tahoe Truckee, *Lowering Barriers for Private Investment: How Fee Incentives Can Help Achievable Local Housing Projects*: https://mountainhousingcouncil.files.wordpress.com/2018/11/mhc_policyrec_devimpactfees_1018_fin_al.pdf

¹² See San Diego Housing Commission, *Addressing The Housing Affordability Crisis: Action Plan for San Diego*: https://www.sdhc.org/wp-content/uploads/2019/01/2016-01-04_SDHC-Housing-Affordability-Crisis-Action-Plan_web.pdf

IV. Consider implementing taxes or fees that also encourage better utilization of housing and land

Primary recommendation(s)
<ul style="list-style-type: none">• To address short-term budget impacts from off-site infrastructure and fee reform, the City may consider adopting fees or taxes on underutilized land, such as vacant parcels and surface parking lots. Fees or taxes on underutilized land also encourages redevelopment, unlike most other revenue sources.• Officials may also consider fees or taxes that encourage better utilization of the existing housing stock, such as fees on long-term housing vacancies or short-term rentals.
Secondary recommendation(s) and other considerations
<ul style="list-style-type: none">• City officials must consider whether the primary goal of fees/taxes on long-term housing vacancies and/or short-term rentals is maximizing revenues, discouraging the taxed activity, or a balance of the two. Higher fees or taxes will tend to discourage the activity rather than maximize revenues.

Several of the previous recommendations may strengthen Reno's long-run fiscal health — in addition to increasing infill housing production and improving affordability — but they also entail short-term budgetary costs. Accommodating changes to off-site requirements and fee schedules may require the City to borrow against future revenues to fund infrastructure upgrades or adjust its capital improvement plan to prioritize infill areas. Alternatively, or additionally, it can explore other revenue sources to defray these costs.

Two categories of fees or taxes are recommended for consideration. First are those that encourage redevelopment of underutilized parcels, especially in areas targeted for additional housing. Examples include taxes or fees on vacant parcels, surface parking lots, and otherwise severely underutilized land.

Adequate infill housing production and market-wide affordability depend on favorable zoning, development standards, and other fee and regulatory policies, but they also hinge on property owners' willingness to redevelop their land or sell to someone who will. Owners may forestall redevelopment when tax policies make it inexpensive to hold underutilized land. Meanwhile, property owners who redevelop their land to more intensive uses contribute more on two fronts: providing useful commercial or residential space and paying higher property taxes. Nevada's limitations on property assessment and taxation may encourage property owners to speculate on rising land values to the detriment of housing affordability and the City of Reno's fiscal health. City officials should explore ways to discourage land speculation, especially strategies that can raise revenues to support other important local priorities.

Second, the City should consider taxes or fees that encourage better utilization of the existing housing stock. City officials should use taxes and fees to minimize long-term vacancies and full-unit short-term rentals.

Long-term vacancies represent only a sliver of the overall housing stock: From 2017-2021, the citywide residential vacancy rate averaged 6.1%, which is low by national standards. Of these vacancies, 15.3% were stereotypical long-term vacancies “for seasonal, recreational, or occasional use,” and 30.1% were classified as “other vacant,” which may include some long-term vacancies (American Community Survey, 2021). The remainder were “market vacancies,” unlikely to remain vacant for long: units for rent or sale, or rented or sold but not yet occupied.

But while long-term vacancy rates are low, these figures nonetheless represent between 1,000 and 3,000 homes vacant most of the year in Reno. Discouraging these vacancies with taxes or fees is a reasonable aim. Long-term vacancies cause little trouble when housing is abundant, but they can exacerbate affordability challenges when housing is scarce, as it is in Reno. Where vacancy taxes and fees exist, they are usually limited to homes vacant at least six months out of a year. Exemptions are usually available to homes under renovation, being foreclosed upon, condemned or scheduled for demolition, etc. Policymakers should also consider whether the primary goal is maximizing revenues (which may, for example, be reinvested in affordable housing programs), discouraging long-term vacancies, or a balance of the two. Higher fees or taxes will tend to discourage the activity rather than maximize revenues.

Short-term rental regulations are discussed in a later section. They are included here only to indicate that they can also be taxed or otherwise regulated with the same distinct purposes in mind: maximizing revenues or discouraging the activity altogether.

The State of Nevada may impose restrictions on the adoption of local taxes and fees; a legal analysis is beyond the scope of this report. Further investigation by City officials will be necessary.

B. Project review streamlining and interagency coordination

I. Develop protocols to ensure consistent application of regulations and interpretation of guidelines

Primary recommendation(s)
<ul style="list-style-type: none">• Establish a “living document” record of difficult project entitlement and permitting cases, including their resolution.
Secondary recommendation(s) and other considerations
<ul style="list-style-type: none">• This record may inform future policy changes to reduce ambiguity and misapplication of regulations.

Development application and permit review are technically complex jobs requiring deep knowledge and considerable experience. The City cannot retain its best employees in these positions indefinitely, so high-quality training must quickly bring new employees up to speed and ensure consistency in the application of municipal regulations. Developing a sufficiently comprehensive training program is difficult, however, because each project is unique: site conditions, developer and investor preferences, zoning and development standards, utilities, and market and political conditions can vary significantly. A lot of learning occurs on the job.

To better respond to the idiosyncrasies of individual projects, lessons from previous cases should be applied consistently and without delay to future projects. To facilitate this, the City should maintain a living document detailing the circumstances of difficult cases and their resolutions.

This document should serve as a reference for all employees involved in project reviews. Over time it should reduce the frequency of inconsistent, improper, or delayed judgments. It may also be used to identify “hot spots” of confusion and misinterpretation and inform regulatory changes to improve clarity and remove obstacles. This document may also serve as an informal reference explaining formal regulations in accessible, non-technical language based on real-world examples.

II. Assign a project manager to lead and coordinate review across departments for each development project

Primary recommendation(s)
<ul style="list-style-type: none">• Assign each development project a manager responsible for coordinating with other agencies and departments, identifying conflicting review comments, and consolidating comments.
Secondary recommendation(s) and other considerations
<ul style="list-style-type: none">• The manager should be in regular contact with other agencies, pressing for speedy reviews and identifying major issues before they reach project applicants.• Engagement with other agencies can inform future policy reforms.

Housing industry professionals report frequently receiving conflicting review comments from different agencies, e.g., two utility agencies requiring incompatible infrastructure at the same location or clearance requirements that leave insufficient space for other essential infrastructure. Problems like conflicting comments or requirements are more likely when there is no single point of contact for project review, or when that point of contact is unclear to external agencies. City officials should appoint a staff member to proactively identify conflicts, consolidate comments, and serve as a liaison between the project applicant and the various agencies and departments.

The project manager should be in regular contact with other agencies and departments during the review period, pressing them to meet their own deadlines and identifying major concerns before they reach project applicants. Unlike developers, who may be seen as acting purely in self-interest, the project manager can serve as a trusted “insider” conveying the importance of fast, clear, and consistent review for achieving the region’s broader affordability and economic development goals. Over time, the manager can also identify bottlenecks and other persistent problems occurring during non-City agency review, and these may inform future reforms at the agency, regional, or state level.¹³

Establishing this position was one of many reforms Leesburg, VA made to its permitting process following the cancelation of a major employer’s expansion plans in the city. These reforms combined to cut overall review times and application resubmissions by more than half.¹⁴

¹³ Portland, OR also reviewed its permitting process and identified numerous strategies to accelerate development process timelines (see especially pgs. 17-18): <https://www.portlandoregon.gov/cbo/article/625321>

¹⁴ Additional reforms to improve streamlining, staffing, and coordination in the project approval process can be found in National Association of Home Builders, *Development Process Efficiency: Cutting Through the Red Tape*: <https://www.nahb.org/-/media/NAHB/advocacy/docs/top-priorities/housing-affordability/development-process-efficiency.pdf>

III. Increase use of simple, objective standards and by-right approvals

Primary recommendation(s)
<ul style="list-style-type: none">• Establish objective design and development standards for multifamily infill housing.• Allow by-right approval of multifamily infill housing except for very large projects and projects seeking substantial variation from zoning or development standards.
Secondary recommendation(s) and other considerations
<ul style="list-style-type: none">• Creating objective design and development standards is also an opportunity to improve the quality and visual appeal of the built environment, and better align design with community priorities.• Additional exactions should not be a condition of by-right approval.

While adequately trained and coordinated staff are important, objective design and development standards and ministerial (or “by-right”) approval processes would eliminate a substantial share of staff time spent on review. Staff would then have more time for higher-value tasks such as long-term planning and community engagement. Streamlining approvals would also support housing production and affordability goals by reducing the costs and risk associated with development.

The City of Reno should undertake a review and update of its design and development standards in collaboration with public and private sector partners with the goal of establishing clear and objective standards. Multifamily infill housing should be the primary focus of this effort as it benefits most from reduced discretion.

Objective design and development standards reduce ambiguity in the interpretation of regulations and guidelines. They can also improve built environment design, better align design with community priorities, and reduce the City’s risk of misapplication of guidelines which may lead to legal challenges. The California Department of Housing and Community Development provides an excellent toolkit for cities transitioning to objective standards, which in California are now required by state law.¹⁵ The award-winning model code developed by Opticos Design for Marin County, CA, may also serve as a useful guide.¹⁶

The City of Reno should also expand the range of project types (by size, location, height, etc.) eligible for by-right approval. By-right projects do not require review or approval by planning staff. Instead, they apply for building permits directly. Most multifamily infill housing should be eligible for by-right approval, with the exception of large projects with at least 100 units or more and projects seeking substantial variance from zoning or development standards.

After decades of increasing discretion in project review and approvals, cities and states across the US are now reducing discretion for many project types. California and

¹⁵ See HCD’s *Objective Design Standards Toolkit*:
[https://hcd.ca.gov.app.box.com/s/baznxdyweq6a8txcrb22li0gogqodzz6](https://hcd.ca.gov/app.box.com/s/baznxdyweq6a8txcrb22li0gogqodzz6)

¹⁶ See Opticos Design’s *Objective Design and Development Standards*:
https://formbasedcodes.org/wp-content/uploads/2022/12/Opticos-Final-Code_Marin-ODDS-1.pdf

Massachusetts are among the states that mandate by-right approvals for projects meeting certain conditions such as transit proximity or including below-market units; Massachusetts' policy is known as the "anti-snob zoning" law. Several states including Utah are considering similar requirements, and cities such as Missoula, MT, and Ann Arbor, MI, have adopted local adaptations. Many cities also allow accessory dwelling units by-right (discussed later).

City officials should take care not to impose additional costs as a condition of by-right approvals. While some reforms may warrant "value capture" provisions as a means of redirecting landowner windfalls toward public benefits, the cost savings from by-right approvals are modest and imposing higher costs elsewhere can easily outweigh them. Existing exactions may be maintained, of course.

IV. Take steps to improve regional and interagency coordination and direct non-City agencies' attention toward housing costs

Primary recommendation(s)
<ul style="list-style-type: none"> • Organize a roundtable of agencies involved in residential permitting and approvals, collaborating to speed up housing approvals and identify and address other barriers to housing production and affordability. • Consider partnering with state officials and other jurisdictions to establish statewide standards for review timelines by non-city agencies, including accountability mechanisms.
Secondary recommendation(s) and other considerations
<ul style="list-style-type: none"> • Officials may prioritize securing voluntary buy-in from non-City agencies over pursuing statewide mandates, but involving state-level elected and departmental officials would benefit either approach.

Home builders in Reno report that non-City agencies like the Truckee Meadows Water Authority and NV Energy are a major source of uncertainty and delay, and ultimately cost. Addressing this problem is essential because a single agency can effectively nullify the efficiencies of every other agency responsible for project review or approval. Further, non-City agencies can undermine affordability by prioritizing cost-inefficient sector-specific goals (e.g., maximizing on-site stormwater capture). Because they cannot mandate fast or consistent review by these agencies, City officials must identify other strategies.

To develop more productive and collaborative interagency relationships, the City should organize a roundtable of representatives from all regional agencies (public and private) involved in residential permitting. This roundtable should prioritize improving consistency and efficiency in housing approvals across agencies and identifying and addressing other barriers to infill production and affordability.

Stakeholders should meet on a recurring basis to identify opportunities for stronger coordination and process improvement, including ways the City may better partner with other agencies to support their goals. The support and involvement of state officials who recognize the regional benefits of expedited approvals would reinforce this effort.

The City should also consider working with state elected officials and departments, housing industry professionals, and other local governments to pursue state-level policy reforms establishing reasonable review timelines and accountability mechanisms. Stakeholders may also consider reforms that limit fees or exactions on new development, especially infill housing.

C. Incremental and “missing middle” infill housing production

I. Legalize accessory dwelling units

Primary recommendation(s)
<ul style="list-style-type: none">• Legalize accessory dwelling units on residential land citywide.• Adopt development standards, by-right approvals, and fee standards that streamline ADU permitting and construction.
Secondary recommendation(s) and other considerations
<ul style="list-style-type: none">• Allow attached and detached ADUs.• Do not mandate owner-occupancy as a condition of ADU permitting or construction.• Do not mandate off-street parking, and do not penalize ADU projects if their feasibility requires removing existing off-street parking.• Do not restrict the potential uses of ADUs, with the possible exception of short-term rentals. Consider allowing ADUs to be used as short-term rentals for a limited duration after completion, e.g., three to five years.• Explore subdivision reform and other strategies to facilitate individual ADU homeownership.

Accessory dwelling units (ADUs) — sometimes known as backyard cottages or granny flats — are additional homes built (in most cases) on lower-density residential parcels. Attached or detached, they are usually smaller than the primary house. They are less expensive than larger single- and multi-family buildings, and constructing them helps property owners build wealth, accommodate family changes, or simply add flexibility for future uses, among other purposes. ADUs can also be designed for minimal impact on neighborhoods’ aesthetic character and are often invisible from the street. Jurisdictions across the US have adopted policies to encourage ADUs in recent years, including Somerville, MA, Durham NC, Fayetteville, AR, and the states of Washington and California.

ADUs can improve housing affordability in two ways. First is by allowing smaller, entry-level homes that are difficult to find in today’s new home market. These units are more affordable by design, whereas most new detached housing is exceptionally large and beyond many households’ means. Second, ADUs improve affordability by increasing the supply of homes across the city, often in locations otherwise unlikely to build more dwellings. Importantly, ADUs complement moderate- and higher-density infill housing production; they are not a substitute.

The City of Reno should reform its zoning code to legalize accessory dwelling units on residential land citywide, and adopt development standards, by-right approvals, and fee standards to streamline ADU permitting and construction. The ADU policy should allow attached or detached units, and it should not mandate owner-occupancy. It should not mandate additional parking as a condition of approval, and City officials may consider allowing use of new ADUs as short-term rentals for a limited duration after construction.

The above policy elements are characteristics shared by successful ADU programs across the US. Demand for ADU construction is significantly lower in cities that prohibit detached units. One reason may be that many homeowners do not want to share walls with potential tenants or guests but are more comfortable sharing a yard with a separate home.

Similarly, robust ADU production depends on widespread legalization. In cities where they are permitted, only a very small share of property owners builds ADUs in a given year. For example, the City of Los Angeles has in recent years produced more ADUs per capita than nearly any US city, averaging nearly 5,000 per year from 2018 through 2022. However, half are repaired or altered existing structures (e.g., formerly unpermitted units), and the city is home to 800,000 parcels. Only about 0.35% of parcels receive permits for new ADUs or ADU additions each year.

Some programs require property owners to live in the primary house or ADU as a condition of project approval. This policy is now recognized as a poison pill that sharply restricts ADU production. A new industry of specialized builders has launched in cities with successful ADU policies, and they are exceedingly difficult to establish in cities with owner-occupancy requirements. While many Reno homeowners would like to build an ADU on their property, few will sacrifice the flexibility to move by committing to owner-occupancy. Entering a legal agreement with the City over long-term occupancy also presents legal risks that most homeowners will not countenance.

Homeowners use their ADUs for a wide range of activities: In one survey of 305 homeowners who built ADUs in Los Angeles, 122 used them as rentals (40%), including 13 short-term rentals (Crane, 2020). (Another 18 rental units were vacant when surveyed and may have been long- or short-term rentals.) The bulk of remaining homeowners used their ADUs for family housing (22%), guest rooms (12%), and business purposes (6%), and 5% their ADU as a primary residence.

The City should not restrict the potential uses of ADUs, with the possible exception of short-term rentals. Restricting how owners use their ADUs will discourage their development, and many ADUs built for a different purpose will likely become rentals in the long run. City officials may consider restricting use of ADUs as short-term rentals, with a potential grace period of three to five years. This restriction should only apply if the City also restricts the use of other housing types as STRs. A grace period may incentivize construction by homeowners who expect flexibility while at the same time increasing the odds that ADUs are eventually used as long-term owner-occupied or rental housing.

To increase entry-level homeownership opportunities for Reno residents, City officials should also explore subdivision reform and other strategies to facilitate ADU ownership separate from ownership of the main house.

Finally, the City should not mandate additional parking for ADU projects. These requirements frequently make it too expensive or physically impossible to build an ADU. Minimum parking reform is discussed in greater detail in section D.I., below.

City officials may refer to the excellent AARP guides on ADU policy¹⁷ and design¹⁸ for additional recommendations and best practices.

II. Revise development standards including density and floor area limits to encourage small- and medium-scale entry-level infill housing

Primary recommendation(s)
<ul style="list-style-type: none">• Allow up to four units per parcel in single-family residential zones inside the McCarran Loop.• Encourage lower-cost housing options and discourage mansionization and flipping by granting modestly higher floor area ratios to multifamily projects in these zones.
Secondary recommendation(s) and other considerations
<ul style="list-style-type: none">• Consider expanding this reform beyond the McCarran Loop for single-family-zoned parcels near high-quality transit and job centers.

Legalizing accessory dwelling units supports local housing goals, but ADUs alone are not enough to significantly improve citywide affordability. Most homeowners will build a second unit on their properties in the near- or medium-term, and ADUs add only one new dwelling at a time. Further, many residents prefer living in more traditional apartments or condo buildings. And finally, building ADUs on single-family parcels decreases the chances of those parcels being redeveloped in the future — there is a limit to what they can do. The City must also encourage denser and more diverse housing types.

The City can increase production of diverse, quality, affordable housing by allowing multiple dwelling units on single-family residential parcels inside the urban core, delineated by the McCarran Loop. Officials can maintain or only partially relax other development standards in these zones. For example, the City can allow up to four units on these parcels, with floor area ratio, height, and setbacks standards similar to those imposed on single-family detached houses. City officials may also consider expanding this policy beyond the McCarran Loop to neighborhoods or corridors near high-quality transit and job centers.

Under this policy existing homes could be subdivided into two or more units where feasible, and small, modern multifamily buildings could replace out-of-date and lower-quality single-family houses. A key goal of this reform is incentivizing construction workers and contractors to spend less time renovating old single-family homes (flipping) and replacing them with larger and more expensive houses (mansionization) and more time growing the housing stock and building more affordable multifamily homes.

To further incentivize more affordable housing typologies, multifamily projects in these zones should receive modest floor area bonuses. Portland, OR adopted this policy in 2021. In its

¹⁷ See AARP, *Accessory Dwelling Units: Model State Act and Local Ordinance*: <https://www.aarp.org/livable-communities/housing/info-2021/adu-model-state-act-and-local-ordinance.html>

¹⁸ See AARP, *Accessory Dwelling Units: A Step by Step Guide to Design and Development*: <https://futureofhousing.aarp.org/wp-content/themes/aarp-housing/dist/ADU-Catalog.pdf>

R5 “single-family” zone, for example, the city restricts floor-area ratio (FAR) to 0.5 for single-unit projects, 0.6 for duplexes, 0.7 for triplexes, and 0.8 for fourplexes. The owner of a 5,000-square-foot parcel could therefore build one 2,500-square-foot unit or up to four units averaging 1,000 square feet each. This policy further advantaged multifamily redevelopment over mansionization by reducing the maximum square footage of new single-family homes to 2,500 square feet, less than half of the previous maximum. The program also allows up to six units for projects with at least three units of deed-restricted below-market housing. Given the high cost of construction relative to rents in deed-restricted affordable housing, this option is useful only to philanthropic efforts and projects receiving outside subsidies.^{19,20}

III. Substantially increase the amount of land zoned for “missing middle” density

Primary recommendation(s)
<ul style="list-style-type: none"> • Replace MF-14 and MF-21 with MF-30 zoning to increase likelihood of redevelopment. • Establish new MF-45 and MF-60 zones that allow 45 and 60 units per acre, respectively, and apply to parcels currently zoned MF-30.
Secondary recommendation(s) and other considerations
<ul style="list-style-type: none"> • N/A

Missing middle is more than just 2–4-unit projects; the City should also encourage projects with five to 20 units or more. Projects of this scale benefit from efficiencies that are difficult to replicate in smaller projects, and they often provide amenities that smaller buildings cannot. Further, 2–4-unit projects are an inefficient use of valuable land in the city’s core and job centers, and they’re insufficiently dense to justify redevelopment of most single-family homes — in most cases they are limited to properties where the existing structure requires demolition or substantial repairs or upgrades. Moderate densities of greater than four units per parcel should be encouraged, especially inside the urban core.

Reno’s zoning code and map are strong points in the City’s housing policy framework. Its medium- and high-density MF-30, MD, MS, and MU zones encompass a considerable share of City land. However, the MF-14 and MF-21 zones are only marginally denser than traditional single-family housing, and many MF-14 parcels near Midtown and the University of Reno should be rezoned to MF-30.

MF-14’s density of 14 units per acre is too low to make redevelopment desirable or financially feasible in most circumstances. Most MF-14 parcels will retain their current use (mostly single-family housing) until higher-density housing is permitted. The MF-21 zone is

¹⁹ Learn more about Portland’s Residential Infill Project here: <https://www.portland.gov/bds/zoning-land-use/residential-infill-project>

²⁰ A useful explanation of motivations behind the Residential Infill Project and key concepts (written several years before its 2020 adoption) can be found here: <https://www.sightline.org/2016/11/15/the-portland-plan-down-with-mcmansions-up-with-abundant-housing-options/>

similarly inadequate, though it applies to fewer parcels in the City. (The MF-14 and MF-21 zones encompass approximately 6.6% and 1.2% of City land, respectively.)

MF-30 zoning accommodates townhouse or garden apartment densities, averaging one unit per 1,450 square feet of land. Rezoning MF-14 and MF-21 parcels to MF-30 will increase their odds of being redeveloped into lower-cost housing types. However, even MF-30 zoning may not be sufficiently dense to spur redevelopment in most cases.

The City should also establish new zones allowing roughly 45 to 60 dwelling units per acre (i.e., MF-45 and MF-60). These new zones would be most appropriate for parcels currently zoned MF-30. Rezoning these parcels would encourage redevelopment and create more housing options near Reno's busiest districts. Although these zones would allow 45 or 60 dwelling units per acre, public rights-of-way and non-residential uses would reduce measured neighborhood-level housing densities by approximately 25 to 50 percent.

D. Zoning, development, and code standards

I. Reduce or eliminate minimum parking mandates (with complementary parking reforms)

Primary recommendation(s)
<ul style="list-style-type: none">• Eliminate minimum parking mandates citywide.
Secondary recommendation(s) and other considerations
<ul style="list-style-type: none">• Prioritize eliminating parking mandates for adaptive reuse projects to encourage commercial- and industrial-to-residential conversions.• Consider establishing residential parking districts and permit programs in locations with high on-street parking demand.• Explore reforming disabled parking placard policies to maximize efficiency of on-street parking spaces, including increased availability for people with disabilities.

Parking mandates fail to achieve stated goals such as limiting parking and traffic congestion and they come at great cost. Growing recognition of these costs has led to a sea change in state and local parking policy. Over 200 US jurisdictions have rolled back minimum parking requirements over the past decade.²¹ Nearly four dozen US cities have eliminated parking mandates citywide, including South Bend, IN, Ann Arbor, MI, Buffalo, NY, St. Paul, MN, Lexington, KY, Raleigh, NC, and Boston, MA. Oregon and California have also passed statewide laws to eliminate parking requirements in many jurisdictions and neighborhoods. Abolishing parking mandates is no longer radical or innovative. Parking reform is becoming inevitable as cities look to a future with proliferating mobility options.

The City of Reno already implemented modest parking reforms with its recent code update, and Nevada is one of the last states with zero cities reporting major parking reforms. Reno should be Nevada's first by eliminating parking mandates entirely.

Reforming minimum parking requirements is especially impactful for adaptive reuse of existing buildings. It is credited for downtown Los Angeles' recovery after decades of stagnation and neglect (Riggs and Chamberlain, 2018), and more recently these reforms have supported conversion and restoration of historic buildings in Buffalo, NY (Hess and Rehler, 2021). Reno's office and retail vacancy rates are low by national standards, but some buildings are likely strong candidates for conversion to residential use.

Onerous and unnecessary parking mandates should not obstruct adaptive reuse conversions. Even if the City doesn't eliminate minimum parking requirements citywide, it should abolish them for adaptive reuse projects at a minimum.

City officials should not worry that removing parking mandates will produce an undersupply of parking. Eliminating parking mandates does not mean eliminating parking. Most projects still include ample parking in cities where parking requirements have been abolished. In

²¹ See Parking Reform Network, *Mandates Map*: <https://parkingreform.org/resources/mandates-map/>

Seattle, for example, parking minimums were eliminated in urban centers and urban villages with frequent transit in 2012. Despite their transit-, bicycle-, and walk-friendly locations, 70% of projects still included parking (Gabbe et al., 2020). After eliminating parking requirements in Buffalo, only six of 36 projects built no parking, and four of the six share parking with nearby property owners (Hess and Rehler, 2021).

Parking is an amenity that most people want, but experience shows that cities do a poor job of estimating how much they'll actually use. Developers earn less revenue if they undersupply parking and they waste capital if they oversupply it; more than anyone else, they have strong incentives for building the "correct" amount of parking. The "correct" amount also varies from project to project, and parking mandates prohibit the diversity that allows people to find housing that meets their unique needs. Minimum parking requirements can also undermine project feasibility in overlooked ways. An apartment builder may be required to build 50 parking spaces, for example, but can only fit 45 on a single underground level and doesn't anticipate needing more than 40. The developer must excavate an entire second subterranean level to accommodate the five additional spaces, likely more than doubling the total cost of the garage. This project would probably not proceed beyond an initial feasibility analysis.

In urban neighborhoods, the City may consider residential parking districts and parking permits to manage on-street parking. In addition to distributing on-street parking equitably amongst residents, parking districts also send the message to developers that they cannot use public streets to externalize the cost of providing too few off-street parking spaces. Parking permits can be allocated by parcel (e.g., two per parcel), parcel size or street frontage, or by price. Permit prices may increase incrementally as a household purchases more permits, or the City can cap the number of permits per household. Opposition can be mitigated by reinvesting permit revenues into neighborhood improvements such as sidewalks and street trees.

Disabled parking placard reform can also improve the utilization and availability of on-street parking. In most states, disabled parking placards allow drivers to occupy any public on-street parking space for unlimited time and free of charge. This is intended to improve accessibility for people with disabilities, but it has the opposite effect: on-street spaces are occupied indefinitely, often by people whose disabilities do not impact their mobility or ability to pay at a meter, sharply limiting availability for individuals with more severe disabilities — or anyone else. "Dynamic pricing" of metered spaces has gained popularity over the past decade, helping cities manage street parking to ensure an average of one open space per block at all times. This goal is unachievable when a large share of drivers is exempt from meter rates and time limits. And securing a disabled parking placard has become more appealing as on-street parking prices have increased.

To address abuse and misuse of disabled parking placards, states including Michigan and Illinois have adopted a two-tier placard system that takes into account disability severity. Those with mobility impairments or disabilities that make it difficult to pay at a meter can park for free, but others must pay (Shoup and Torres-Gil, 2016). Raleigh, NC and Portland, OR require all drivers to pay at meters, regardless of placard status, and Portland paired this reform with extended time limits for disabled drivers and additional disabled-only parking spaces (Wright, 2016). The City of Reno — partnering with state officials if necessary —

should adopt disabled parking placard reforms modeled on these and other state and local programs.

II. Reform the building code to allow single stair “point access block” buildings

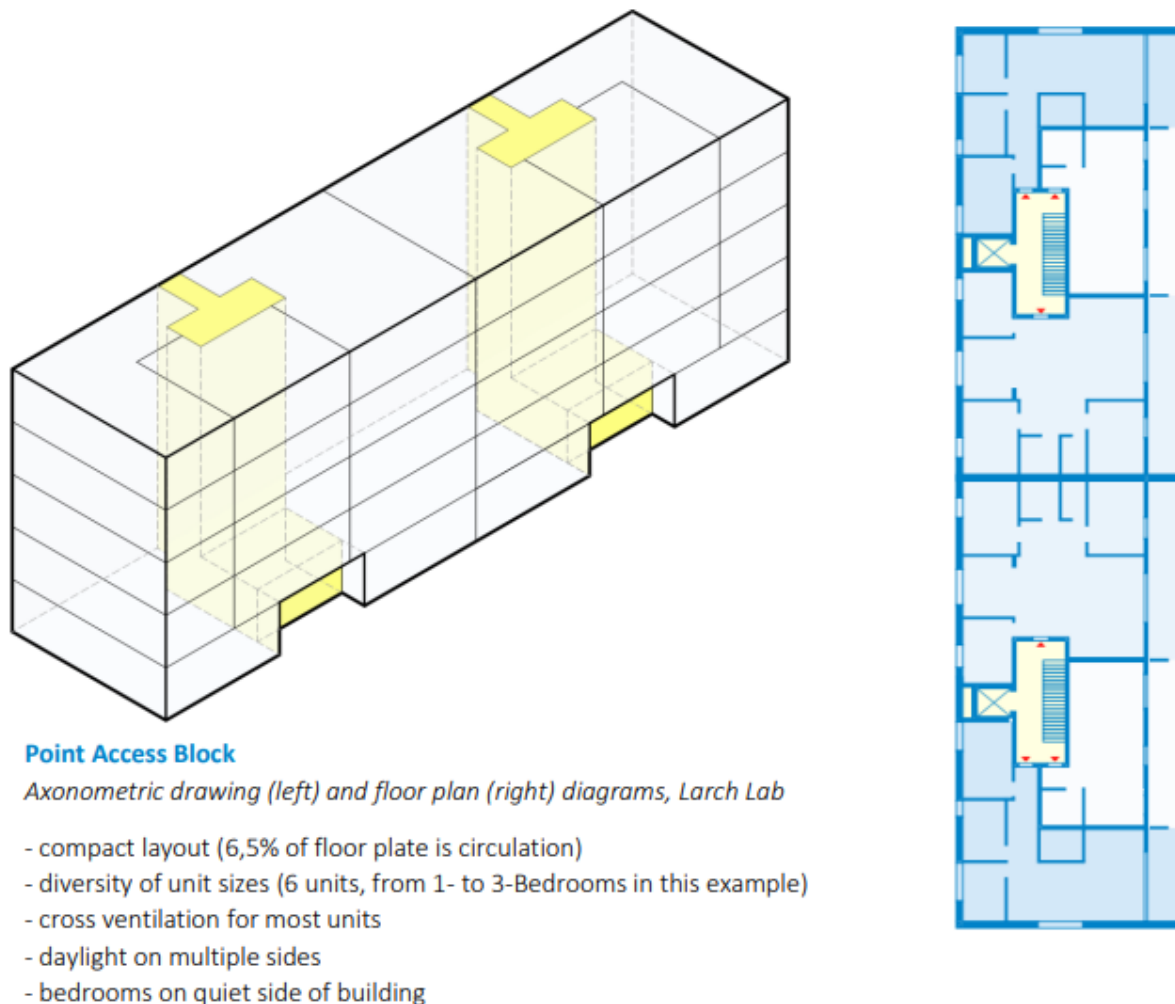
Primary recommendation(s)
<ul style="list-style-type: none">• Pursue building code reforms allowing a single stairwell in multifamily residential structures up to at least six stories tall.
Secondary recommendation(s) and other considerations
<ul style="list-style-type: none">• Organize a technical advisory group of state and/or regional building code council(s), the state fire marshal, and other interested parties as an early milestone.

Encouraging more infill housing in the urban core requires the City to address barriers to developing smaller parcels (e.g., 10,000 sq ft or less). Eliminating minimum parking requirements is probably the most effective way to encourage development on these parcels. Revising the building code to allow single-stair, multi-story buildings may be the second-most effective tactic.

To promote the construction of more efficient, sustainable, livable, and affordable infill housing on small urban lots, the City should reform the building code and allow a single stairwell in multifamily residential structures up to six stories tall. Code reforms should reflect similar provisions in other cities to prevent increased fire risk. There is no evidence that single-stair buildings are less safe than multi-stair buildings.

The purpose of this reform is enabling the construction of “point access block” buildings, illustrated below in Figure 7. These buildings do not require long and wasteful double-loaded corridors, and they fit more easily on all parcels, but especially those under 10,000 square feet. These structures minimize circulation space and orient units around a single central stairway (and often elevator). This increases the proportion of the building devoted to revenue-generating uses and improves design by facilitating sunlight on multiple sides of most units, cross-ventilation, and a wider range of unit sizes.

Figure 7. Illustration of single stair, point access block buildings.



Point access block buildings can improve quality of life while reducing the cost of non-revenue-generating corridor space. (Source: “[Unlocking livable, resilient, decarbonized housing with Point Access Blocks](#),” by Larch Lab for the City of Vancouver, B.C.)

Few US cities allow single-stair buildings today, but this does not reflect any known fire/life safety benefits. Many of the world’s most livable cities permit point-access block development, including Paris and Vienna. Seattle has led building code reform in the US and allows single-stair buildings up to six stories tall (Eliason, 2021). Washington State lawmakers passed a law in 2023 requiring the state building code council to convene a technical advisory group to evaluate allowing single-stair buildings up to six stories statewide.²² The City of Reno should work with Nevada state officials to organize a technical advisory group to recommend potential building code reforms in the state. This group would incorporate feedback from interested stakeholders, particularly fire department officials and the state fire marshal.

The City of Reno should also look to Seattle for guidance on building code reforms and safety enhancements, and may also refer to Conrad Speckert’s work advancing single-stair

²² Bill text and analysis for Washington’s SB 5491 can be found here: <https://app.leg.wa.gov/billsummary?BillNumber=5491&Year=2023>

reform in Canada.²³ Additional insights may be gleaned from California's single-stair reform bill, Assembly Bill 835.²⁴

III. Reevaluate unlimited floor area standard in MU zones outside Downtown

Primary recommendation(s)
<ul style="list-style-type: none">Consider establishing a maximum floor-area ratio (FAR) of approximately 6.0 in MU and MS zones outside the Downtown core.
Secondary recommendation(s) and other considerations
<ul style="list-style-type: none">Encourage design flexibility within the constraints of FAR limits by retaining unlimited height and dwelling unit density standards.

There is a large development capacity disparity between the City's Mixed-Use Urban and Mixed-Use Suburban (MU/MS) zoning districts and all other zoning districts. The capacity of MU/MS-zoned parcels outside the Downtown core also exceeds the market demand for housing — specifically the demand for expensive high-rise towers — by a wide margin. This may discourage the sale and redevelopment of underutilized parcels in the City's urban core.

The City should consider bringing MU and MS zoning districts into closer alignment with market demand by establishing floor-area ratio (FAR) maximums for MU/MS-zoned parcels outside the Downtown core. A maximum FAR of 6.0 would likely be sufficient. The MU and MS zoning districts should retain unlimited height and dwelling unit density standards so as not to constrain building typology, design, and unit mix.

Some projects above 6.0 FAR may be proposed if this reform is not adopted, and those projects would not be proposed or built if an FAR cap is adopted. This loss must be balanced, however, against the benefits of discouraging land speculation on urban core parcels that should be prioritized for redevelopment. In this context, developing a larger number of parcels to mid-rise densities is of greater value than developing a smaller number of parcels to high-rise densities.

The City should retain unlimited FAR in locations most likely to see high-rise development in the coming decades. This includes parcels in the Downtown core, but Reno officials may identify other areas warranting unlimited FAR or FAR limits above 6.0.

²³ See *Second Egress*: <https://secondegress.ca/>

²⁴ Bill text and analysis for California's AB 835 can be found here: https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=202320240AB835

E. Displacement protections and housing preservation

I. Proactively regulate short-term rentals

Primary recommendation(s)
<ul style="list-style-type: none">• Restrict short-term rentals to primary residences. Prohibit short-term rental of houses, apartments, and condos unoccupied by the owner more than half the year.• Alternatively, consider restricting full-house and full-unit STRs to a maximum of 90 or 120 days per year.
Secondary recommendation(s) and other considerations
<ul style="list-style-type: none">• Consider exempting ADUs and multifamily development from STR restrictions during their first three to five years after opening.• Proactively and consistently enforce STR regulations.

Short-term rental (STR) regulations are difficult to generalize because they're highly context-dependent, but the following questions can guide the policymaking process:

- Is the city's goal eliminating/minimizing STRs, or regulating and generating revenues from them?
- What mix of regulations supports the positive aspects of STRs, such as efficient use of underutilized housing resources, and discourages or prohibits their negative aspects, e.g., converting residential space to commercial/tourist uses?

STRs should be allowed, but strictly regulated. To prevent the conversion of long-term housing to short-term rentals, hosts should be limited to renting their primary residence.²⁵ Under these circumstances residents can earn money from their homes while away on vacation or business, or rent a room in their home, but they cannot acquire and rent dwellings purely for STR purposes. These restrictions should apply to all housing typologies in the City, including detached and attached houses, apartments, and condos.

As an alternative to owner-occupancy requirements, City officials may instead consider restricting short-term rental of entire dwelling units to a maximum of 90 or 120 days per year. This should negate the financial benefits of converting an owner-occupied or long-term rental unit into a short-term rental.

Some developers may find it advantageous to operate a portion of newly built units as short-term rentals in the early years after their project is completed. This option may also improve feasibility for otherwise infeasible or marginal projects. Similarly, some homeowners may wish to operate a new ADU as a short-term rental — or retain the option to do so — to offset the cost of building the unit.

²⁵ The City of Denver's short-term rental ordinance provides a useful definition of *primary residence*: "Primary residence means the place in which a person's habitation is fixed for the term of the license and is the person's usual place of return. A person can have only one (1) primary residence."

Reno officials should consider an STR regulation grace period of roughly three to five years for certain housing developments, including ADUs and multifamily buildings in specified areas of the city. A grace period may encourage the development of projects that, while not intended for immediate use as long-term housing, will be added to the stock of owner- and renter-occupied homes within several years.

Finally, STR regulations are not adequately enforced in many cities. While City officials should adopt a clear and achievable enforcement plan, in this case there is also value in simply having “rules on the books,” even if they are lightly enforced. Proactively regulation can discourage short-term rental businesses from growing in the City and becoming powerful lobbies against future regulation.

II. Explore state reform to allow limited “anti-gouging” rent stabilization

Primary recommendation(s)
<ul style="list-style-type: none">• Explore the legal feasibility of rent stabilization policy in the City.• Design rent stabilization to include vacancy decontrol, caps on annual rent increases calculated by the sum of the inflation rate and a fixed percentage, and a 20-year exemption for new buildings.
Secondary recommendation(s) and other considerations
<ul style="list-style-type: none">• Most jurisdictions limit rent stabilization to multifamily housing. Applying the same protections to single-family housing would benefit additional vulnerable households, but also create unique challenges.

Many people have negative associations with rent control, especially landlords and economists. These associations originate from observation of cities that adopted “first-generation” rent control in decades past, most famously New York City.²⁶ First-generation rent control limits the percentage that landlords can raise rents each year, even when old tenants move out and new ones move in. It is associated with poorly maintained housing and abandoned buildings, “key money” and gray/black markets, higher rents and home prices in non-rent-controlled housing, condo and co-op conversions, and severely diminished rental housing production. Mumbai, India has had strict first-generation rent control for many decades. From 1961–2011, the city’s rental housing stock grew by only 4.59%, while the owner-occupied housing stock grew by over 2,500% (Tandel et al., 2016). Rent control is the primary cause of this disparity.

Second-generation rent control works differently, and it is worth consideration. This newer iteration of rent control — often referred to as “rent stabilization” — allows rents to be reset at market rates between tenancies; this provision is known as “vacancy decontrol.” This means that while landlords cannot increase rents to market rate while current tenants occupy their units, they can do so after tenants move out and new ones move in. At this time annual rent increases are once again restricted until the unit turns over again. Cities and states with this form of rent stabilization generally build new housing at rates similar to

²⁶ Notably, only a tiny fraction of rentals in New York City are regulated by first-generation rent control today.

neighboring jurisdictions without rent stabilization. Rent stabilization also grants tenants a measure of security and predictability that is unfortunately rare in the US, but which cities should consider as part of a holistic affordability and housing stability strategy.

To balance increased infill housing production and stronger tenant protections, the City of Reno should explore options for enacting a light-touch “anti-gouging” rent stabilization policy. Given state restrictions, this will likely require legislative action. The rent stabilization policy should include several elements that, combined, can mitigate the potential negative impacts of rent stabilization:

- Exemption from rent stabilization for at least 20 years after project completion
- Annual rent increases limited to the sum of the annual change to the local consumer price index (CPI) and a fixed percentage, e.g., 5%
- Vacancy decontrol allowing rents to be set at market rate with new tenancies

Rent stabilization typically applies only to multifamily housing, but this practice is motivated more by the challenging politics associated with regulating single-family housing than the best interests of tenants. That said, there may be practical reasons for exempting detached houses from rent stabilization. For example, single-family rental homeowners or their family members may be more likely than apartment owners to move into their units at a later date, and rent stabilization and just cause eviction protections (see next recommendation) can complicate this process.

Oregon and California have both adopted “anti-gouging” rent stabilization policies and they permit substantial annual rent increases. Rent hikes in Oregon are limited to CPI plus 7%; an inflation rate of 3% would permit rent increases of 10%. In California annual rent increases are limited to 10% or CPI plus 5%, whichever is lower. Landlords rarely raise rents so far in excess of the inflation rate, and there are few instances where it would be a business necessity. These caps prevent worst-case rent increases — those most likely to result in the involuntary departure of a tenant household — but they do not interfere unduly with typical landlord operations. Anti-gouging rent stabilization should be evaluated on its documented benefits and drawbacks, which are distinct from first-generation rent control. With appropriate policy design, anti-gouging protections are fully compatible with a robust housing production and affordability strategy.

For additional reading, the University of Minnesota Center for Urban and Regional Affairs’ Minneapolis Rent Stabilization Study is a useful reference for research findings and policy design considerations.²⁷

²⁷ See University of Minnesota CURA, *Minneapolis Rent Stabilization Study*: <https://www.cura.umn.edu/research/minneapolis-rent-stabilization-study>

III. Implement just cause eviction protections

Primary recommendation(s)
<ul style="list-style-type: none">• Explore the legal feasibility of just cause eviction protections that prohibit evictions under certain conditions.
Secondary recommendation(s) and other considerations
<ul style="list-style-type: none">• Most jurisdictions limit just cause eviction protections to multifamily housing. Applying the same protections to single-family housing would benefit additional vulnerable households, but also create unique challenges.

Just cause eviction protections, also known as “good cause” protections, define the circumstances under which landlords can evict tenants and prohibit evictions for any other reason. Permissible reasons for eviction are divided into “at-fault” or “for cause” — generally cases where the tenant has violated the lease agreement — and “no-fault” evictions — where the tenant has not violated any rules but still must vacate the unit, for example to accommodate owner move-in, redevelopment, or building conversion to another use (Phillips, 2020).

Just cause eviction protections can improve housing stability in any jurisdiction, but they are essential in jurisdictions with rent stabilization. Without such protections, landlords can skirt rent stabilization restrictions by evicting tenants without cause and replacing them with new market-rate tenants. As with rent stabilization, just cause protections typically apply only to multifamily housing.

The City should explore the legal feasibility of a just cause eviction ordinance, especially as a complement to an anti-gouging rent stabilization policy. Just cause protections should apply to all rent-stabilized housing at a minimum, but City officials should also consider applying just cause protections to newer multifamily housing exempt from rent stabilization.

8. Summary of Recommendations

Each recommendation from the previous section is reproduced below for easy reference.

A. Infrastructure planning and development fees

I. Update capital plan with more comprehensive infrastructure repair, replacement, and upgrade schedule, and use to compensate developers for off-site infrastructure requirements on a pro rata basis

Primary recommendation(s)
<ul style="list-style-type: none">• Develop a detailed maintenance plan including the age, condition, and planned replacement or upgrade date for infrastructure types the City often requires developers to replace or improve as a condition of project approval.• Use this plan during the project approval process to determine developers' pro rata contribution toward off-site improvements, splitting costs between the City and developers.
Secondary recommendation(s) and other considerations
<ul style="list-style-type: none">• In lieu of collecting only a pro rata contribution from developers, have them pay the full cost of off-site improvements and be reimbursed at a later date, e.g. with rebates on utility user fees or other local taxes or fees.• Require developers to pay a pro rata contribution toward future infrastructure improvements when no (or very limited) off-site infrastructure investments are required by the City.

II. Adjust impact fees to reflect lifecycle costs and revenues from new housing

Primary recommendation(s)
<ul style="list-style-type: none">• Develop an estimate of short- and long-term government revenues and expenses associated with new housing and adjust fees to better reflect "lifecycle" costs, evaluating the fiscal impacts of multifamily infill housing and detached, suburban-style housing separately.• For fees that are not fully eliminated, consider charging fees proportionate to square footage rather than unit count.
Secondary recommendation(s) and other considerations
<ul style="list-style-type: none">• To avoid near-term budget shortfalls, consider maintaining current fee rates and reimbursing developers over time through rebates on local taxes or fees.

III. Defer fees to issuance of certificate of occupancy where possible

Primary recommendation(s)
<ul style="list-style-type: none">• Allow deferral of multifamily infill housing impact fees until the City issues a certificate of occupancy.
Secondary recommendation(s) and other considerations
<ul style="list-style-type: none">• “Lock in” the fee amount when project applications are submitted or building permits are issued.• Consider escalating the locked-in fee amount in accordance with local inflation rates (general or industry-specific) or borrowing costs.• Fees used to defray staff review costs should not be eligible for fee deferral due to increased odds of nonpayment.

IV. Consider implementing taxes or fees that also encourage better utilization of housing and land

Primary recommendation(s)
<ul style="list-style-type: none">• To address short-term budget impacts from off-site infrastructure and fee reform, the City may consider adopting fees or taxes on underutilized land, such as vacant parcels and surface parking lots. Fees or taxes on underutilized land also encourages redevelopment, unlike most other revenue sources.• Officials may also consider fees or taxes that encourage better utilization of the existing housing stock, such as fees on long-term housing vacancies or short-term rentals.
Secondary recommendation(s) and other considerations
<ul style="list-style-type: none">• City officials must consider whether the primary goal of fees/taxes on long-term housing vacancies and/or short-term rentals is maximizing revenues, discouraging the taxed activity, or a balance of the two. Higher fees or taxes will tend to discourage the activity rather than maximize revenues.

B. Approval streamlining and interagency coordination

I. Develop protocols to ensure consistent application of regulations and interpretation of guidelines

Primary recommendation(s)
<ul style="list-style-type: none">Establish a “living document” record of difficult project entitlement and permitting cases, including their resolution.
Secondary recommendation(s) and other considerations
<ul style="list-style-type: none">This record may inform future policy changes to reduce ambiguity and misapplication of regulations.

II. Assign a project manager to lead and coordinate review across departments for each development project

Primary recommendation(s)
<ul style="list-style-type: none">Assign each development project a manager responsible for coordinating with other agencies and departments, identifying conflicting review comments, and consolidating comments.
Secondary recommendation(s) and other considerations
<ul style="list-style-type: none">The manager should be in regular contact with other agencies, pressing for speedy reviews and identifying major issues before they reach project applicants.Engagement with other agencies can inform future policy reforms.

III. Increase use of simple, objective standards and by-right approvals

Primary recommendation(s)
<ul style="list-style-type: none">Establish objective design and development standards for multifamily infill housing.Allow by-right approval of multifamily infill housing except for very large projects and projects seeking substantial variation from zoning or development standards.
Secondary recommendation(s) and other considerations
<ul style="list-style-type: none">Creating objective design and development standards is also an opportunity to improve the quality and visual appeal of the built environment, and better align design with community priorities.Additional exactions should not be a condition of by-right approval.

IV. Take steps to improve regional and interagency coordination and direct non-City agencies' attention toward housing costs

Primary recommendation(s)

- Organize a roundtable of agencies involved in residential permitting and approvals, collaborating to speed up housing approvals and identify and address other barriers to housing production and affordability.
- Consider partnering with state officials and other jurisdictions to establish statewide standards for review timelines by non-city agencies, including accountability mechanisms.

Secondary recommendation(s) and other considerations

- Officials may prioritize securing voluntary buy-in from non-City agencies over pursuing statewide mandates, but involving state-level elected and departmental officials would benefit either approach.

C. Incremental and “missing middle” infill housing production

I. Legalize accessory dwelling units

Primary recommendation(s)
<ul style="list-style-type: none">• Legalize accessory dwelling units on residential land citywide.• Adopt development standards, by-right approvals, and fee standards that streamline ADU permitting and construction.
Secondary recommendation(s) and other considerations
<ul style="list-style-type: none">• Allow attached and detached ADUs.• Do not mandate owner-occupancy as a condition of ADU permitting or construction.• Do not mandate off-street parking, and do not penalize ADU projects if their feasibility requires removing existing off-street parking.• Do not restrict the potential uses of ADUs, with the possible exception of short-term rentals. Consider allowing ADUs to be used as short-term rentals for a limited duration after completion, e.g., three to five years.• Explore subdivision reform and other strategies to facilitate individual ADU homeownership.

II. Revise development standards including density and floor area limits to encourage small- and medium-scale entry-level infill housing

Primary recommendation(s)
<ul style="list-style-type: none">• Allow up to four units per parcel in single-family residential zones inside the McCarran Loop.• Encourage lower-cost housing options and discourage mansionization and flipping by granting modestly higher floor area ratios to multifamily projects in these zones.
Secondary recommendation(s) and other considerations
<ul style="list-style-type: none">• Consider expanding this reform beyond the McCarran Loop for single-family-zoned parcels near high-quality transit and job centers.

III. Substantially increase the amount of land zoned for “missing middle” density

Primary recommendation(s)
<ul style="list-style-type: none">• Replace MF-14 and MF-21 with MF-30 zoning to increase likelihood of redevelopment.• Establish new MF-45 and MF-60 zones that allow 45 and 60 units per acre, respectively, and apply to parcels currently zoned MF-30.
Secondary recommendation(s) and other considerations
<ul style="list-style-type: none">• N/A

D. Zoning, development, and code standards

I. Reduce or eliminate minimum parking mandates (with complementary parking reforms)

Primary recommendation(s)
<ul style="list-style-type: none">• Eliminate minimum parking mandates citywide.
Secondary recommendation(s) and other considerations
<ul style="list-style-type: none">• Prioritize eliminating parking mandates for adaptive reuse projects to encourage commercial- and industrial-to-residential conversions.• Consider establishing residential parking districts and permit programs in locations with high on-street parking demand.• Explore reforming disabled parking placard policies to maximize efficiency of on-street parking spaces, including increased availability for people with disabilities.

II. Reform the building code to allow single stair “point access block” buildings

Primary recommendation(s)
<ul style="list-style-type: none">• Pursue building code reforms allowing a single stairwell in multifamily residential structures up to at least six stories tall.
Secondary recommendation(s) and other considerations
<ul style="list-style-type: none">• Organize a technical advisory group of state and/or regional building code council(s), the state fire marshal, and other interested parties as an early milestone.

III. Reevaluate unlimited floor area standard in MU zones outside Downtown

Primary recommendation(s)
<ul style="list-style-type: none">• Consider establishing a maximum floor-area ratio (FAR) of approximately 6.0 in MU and MS zones outside the Downtown core.
Secondary recommendation(s) and other considerations
<ul style="list-style-type: none">• Encourage design flexibility within the constraints of FAR limits by retaining unlimited height and dwelling unit density standards.

E. Displacement protections and housing preservation

I. Proactively regulate short-term rentals

Primary recommendation(s)
<ul style="list-style-type: none">• Restrict short-term rentals to primary residences. Prohibit short-term rental of houses, apartments, and condos unoccupied by the owner more than half the year.• Alternatively, consider restricting full-house and full-unit STRs to a maximum of 90 or 120 days per year.
Secondary recommendation(s) and other considerations
<ul style="list-style-type: none">• Consider exempting ADUs and multifamily development from STR restrictions during their first three to five years after opening.• Proactively and consistently enforce STR regulations.

II. Explore state reform to allow limited “anti-gouging” rent stabilization

Primary recommendation(s)
<ul style="list-style-type: none">• Explore the legal feasibility of rent stabilization policy in the City.• Design rent stabilization to include vacancy decontrol, caps on annual rent increases calculated by the sum of the inflation rate and a fixed percentage, and a 20-year exemption for new buildings.
Secondary recommendation(s) and other considerations
<ul style="list-style-type: none">• Most jurisdictions limit rent stabilization to multifamily housing. Applying the same protections to single-family housing would benefit additional vulnerable households, but also create unique challenges.

III. Implement just cause eviction protections

Primary recommendation(s)
<ul style="list-style-type: none">• Explore the legal feasibility of just cause eviction protections that prohibit evictions under certain conditions.
Secondary recommendation(s) and other considerations
<ul style="list-style-type: none">• Most jurisdictions limit just cause eviction protections to multifamily housing. Applying the same protections to single-family housing would benefit additional vulnerable households, but also create unique challenges.

9. References

- Asquith, B. J., Mast, E., & Reed, D. (2021). Local effects of large new apartment buildings in low-income areas. *The Review of Economics and Statistics*, 1-46.
- Been, V. (2005). Impact fees and housing affordability. *Cityscape*, 139-185.
- Been, V., Ellen, I. G., & O'Regan, K. (2019). Supply skepticism: Housing supply and affordability. *Housing Policy Debate*, 29(1), 25-40.
- Blumenberg, E., & Pierce, G. (2012). Automobile ownership and travel by the poor: Evidence from the 2009 National Household Travel Survey. *Transportation Research Record*, 2320(1), 28-36.
- Bratu, C., Harjunen, O., & Saarimaa, T. (2021). City-wide effects of new housing supply: Evidence from moving chains. *VATT Institute for Economic Research Working Papers*, 146.
- Chapple, K., & Loukaitou-Sideris, A. (2021). White paper on anti-displacement strategy effectiveness. California Air Resources Board. Retrieved February 23, 2022.
- Conaughton, G. (Mar 2 2016). Supervisors Help Builders; Make Fee Deferral Permanent. County News Center. Retrieved from <https://www.countynewscenter.com/supervisors-help-builders-make-fee-deferral-permanent/>
- Crane, R. E. (2020). Is Granny in that Flat?: How Regulations Shape the Construction and Use of Accessory Dwelling Units in Los Angeles. University of California Los Angeles.
- Durning, A. (Jul 25 2013). Wide Open Spaces. Sightline Institute. Retrieved from <https://www.sightline.org/2013/07/25/wide-open-spaces/>
- Eliason, M. (Dec 20 2021). Seattle's Lead on Single Stair Buildings. *The Urbanist*. Retrieved from <https://www.theurbanist.org/2021/12/20/seattles-lead-on-single-stair-buildings/>
- Gabbe, C. J., Pierce, G., & Clowers, G. (2020). Parking policy: The effects of residential minimum parking requirements in Seattle. *Land Use Policy*, 91, 104053.
- Hess, D. B., & Rehler, J. (2021). Minus Minimums: Development Response to the Removal of Minimum Parking Requirements in Buffalo (NY). *Journal of the American Planning Association*, 87(3), 396-408.
- Horn, K., & Merante, M. (2017). Is home sharing driving up rents? Evidence from Airbnb in Boston. *Journal of Housing Economics*, 38, 14-24.
- Koster, H., Van Ommeren, J., & Volkhausen, N. (2018). Short-term rentals and the housing market: Quasi-experimental evidence from Airbnb in Los Angeles.

- Li, X. (2019). Do new housing units in your backyard raise your rents. NYU Wagner and NYU Furman Center. Job market paper, 57.
- Litman, T. (2022). Comprehensive Parking Supply, Cost and Pricing Analysis. Victoria Transport Policy Institute.
- Litman, T. (2022). Understanding Smart Growth Savings: Evaluating Economic Savings and Benefits of Compact Development. Victoria Transport Policy Institute.
- Manville, M., Monkkonen, P., Gray, N., & Phillips, S. (2022). Does Discretion Delay Development? The Impact of Approval Pathways on Multifamily Housing's Time to Permit. *Journal of the American Planning Association*, 1-12.
- Manville, M., & Osman, T. (2017). Motivations for growth revolts: Discretion and pretext as sources of development conflict. *City & Community*, 16(1), 66-85.
- Mast, E. (2021). JUE Insight: The effect of new market-rate housing construction on the low-income housing market. *Journal of Urban Economics*, 103383.
- Metro Vancouver. (2012). The Metro Vancouver Apartment Parking Study, Revised Technical Report.
- Parolek, D. G. (2020). Missing Middle Housing: Thinking Big and Building Small to Respond to Today's Housing Crisis. Island Press.
- Pennington, K. (2021). Does building new housing cause displacement? The supply and demand effects of construction in San Francisco. University of California Berkeley. Job market paper.
- Phillips, S. (2020). The Affordable City: Strategies for Putting Housing Within Reach (and Keeping it There). Island Press.
- Phillips, S. (2021). Reducing Development Costs with Impact Fee Deferral. UCLA Lewis Center for Regional Policy Studies.
- Phillips, S., Manville, M., & Lens, M. (2021). Research Roundup: The Effect of Market-Rate Development on Neighborhood Rents. UCLA Lewis Center for Regional Policy Studies.
- Sheppard, S., & Udell, A. (2016). Do Airbnb properties affect house prices? Williams College Department of Economics Working Papers, 3(1), 43.
- Shoup, D., & Torres-Gil, F. (2016). The Two Tier Solution. International Parking and Mobility Institute. Retrieved from <https://www.parking-mobility.org/2016/01/27/tpp-2015-08-solutions-to-disabled-parking-placard-usage/>
- Tandel, V., Patel, S., Gandhi, S., Pethe, A., & Agarwal, K. (2016). Decline of rental housing in India: The case of Mumbai. *Environment and Urbanization*, 28(1), 259-274.

Thigpen, C. G. (2018). Giving parking the time of day: A case study of a novel parking occupancy measure and an evaluation of infill development and carsharing as solutions to parking oversupply. *Research in Transportation Business & Management*, 29, 108-115.

US Fire Administration. (2011). Fire death rate trends: an international perspective. *Topical Fire Report Series*, 12(8), 1-8.

Wright, M. (2016). Solutions to Disabled-Parking Placard Usage. International Parking and Mobility Institute. Retrieved from <https://www.parking-mobility.org/2016/01/27/tpp-2015-08-solutions-to-disabled-parking-placard-usage/>