

EXHIBIT A

ATTACHMENT A

Date: September 20, 2023

Subject: Parking Management for Housing Affordability and Complete Communities

PURPOSE:

The Tahoe Region and mountain resort communities across North America are suffering from a crisis of affordability. As market demand for high-end residential development and second homes increases, home and rental prices soar and opportunities for local workers and their families to live in the region diminish. As a result, businesses struggle to remain fully staffed and more workers are forced to live elsewhere, increasing traffic and vehicle emissions while fracturing community character and cohesion. While a range of macro-economic factors contribute to the housing crisis, local and regional development standards impact affordability as well. These include density, height, coverage, development rights, setbacks, parking, and restrictions on subdivision. Taken together, these standards can have a major impact on the cost to construct new middle-income and workforce housing.

Although often overlooked, parking regulations can have significant impacts on community life and housing affordability. In a financial feasibility analysis for TRPA, Cascadia Partners found that reducing parking minimums was necessary to realize the benefit of increased building height and coverage for affordable developments. Cascadia notes that, with existing parking minimums, the expanded building footprint allowed for deed-restricted developments would quickly be consumed by parking, diminishing the benefits of expanded coverage, height, and density allowances for affordable housing.¹ This memo surveys best practices for parking management. This memo also considers prevailing concerns from community members and policy makers regarding the impacts of parking management, and specifically the impacts of removal of parking minimums, on neighborhood street parking, on snow removal, on parking enforcement, and with limited transit service.

DISCUSSION:

High Parking Minimums

Few regions in the United States better demonstrate the conflict between landscape conservation and auto-oriented land development than our own. Like many American communities, the Tahoe Region saw much of its development occur during the 1960s, when auto-oriented development was the norm. This created a landscape designed for cars rather than people and resulted in insignificant environmental impacts. Also like many American communities, minimum requirements for the number of parking spaces associated with a development (parking minimums) played a role in shaping our auto-oriented land use pattern. There are environmental costs to minimum parking requirements, with runoff from parking lots contaminating waterways, as well as the direct costs of constructing new parking spaces—

¹ Cascadia Partners. "TRPA Proforma Analysis Test Results." March 30, 2022.

roughly \$5,000 per surface space or \$50,000 per space for multilevel garages—which can escalate the cost of development to the point of financial infeasibility. The American Planning Association (APA) cites a movement across cities and small towns in all regions of the United States to reduce or remove minimum parking requirements, noting that even the National Parking Association, the industry trade group for parking operators, officially supports reducing or eliminating parking requirements.²

UCLA professor and parking expert, Michael Manville, calls parking minimums a disaster for communities, transferring valuable space from people to cars and transferring the cost of parking from drivers to residents, resulting in “more driving, and less housing.”³ Donald Shoup’s influential 2005 book, “The High Cost of Free Parking,” argues that “the status quo of minimum parking requirements in the United States subsidizes cars, increases vehicle miles traveled, encourages sprawl and separation of uses, worsens air pollution and greenhouse gas emissions, raises the cost of housing construction and thus the cost of renting or buying a home, prevents pedestrian mobility, and excludes low-income people from participating in the economy.”⁴ Thus, according to Shoup, high parking minimums are a contributing factor to many of the social, environmental, and economic problems that TRPA is tasked with addressing through the Regional Plan and Complete Communities Initiative.

Cascadia’s analysis confirms the connection between parking minimums and the high cost of housing in our region, suggesting that current parking minimums in the Tahoe Region are excessive and create a barrier to affordable housing development (see Table 1 for existing local parking minimums). In a



financial feasibility analysis of Kings Beach, Incline Village, and the Ski Run Town Center in South Lake Tahoe, Cascadia Partners found that lowering parking requirements was necessary to realize the benefit of height and parcel-level density allowances for affordable developments, recommending that existing local parking minimums be reduced to 0.75 spaces per unit or eliminated altogether. Significantly, Cascadia found that even with a 20 percent reduction in parking requirements for deed-restricted housing in the Ski Run Town Center, parking still consumed more land coverage than housing.⁵

Manville’s research supports these findings. He notes that parking minimums effectively reduce the number of units for which a parcel is zoned. For example, a parcel which might otherwise accommodate 20 units may only support 15 when parking requirements consume land area and make construction of

² American Planning Association. “PAS QuickNotes No. 53: Parking Management.” 2014.

Spivak, Jeff. “A Business Case for Dropping Parking Minimums.” *Planning Magazine*. June 2022. <https://www.planning.org/planning/2022/spring/a-business-case-for-dropping-parking-minimums/>

³ Manville, Michael. “How Parking Destroys Cities.” *The Atlantic*. May 2021. <https://www.theatlantic.com/ideas/archive/2021/05/parking-drives-housing-prices/618910/>

⁴ “Planopedia: What Are Parking Requirements?” *Planetizen*. 2023. <https://www.planetizen.com/definition/parking-requirements>

⁵ Cascadia Partners, 2022.

20 units financially infeasible.⁶ Therefore, high parking minimums have the dual effect of decreasing the number of units that can be built on a given parcel and increasing the cost per unit.

	Washoe County	City of South Lake Tahoe	Placer County	El Dorado County	Douglas County
Parking Minimum	1.6 spaces/ 1 bdrm 2.1 spaces/ 2+ bdrm 1 space must be enclosed	1 space/ 1 bdrm 2 spaces/2+ bdrm 1 guest space/4 units	2 spaces/DU	2 spaces/DU	2 spaces/DU

Table 1: Existing Local Minimum Parking Requirements in the Tahoe Region.

The Origins and Costs of High Parking Minimums:

Parking requirements date to the mid-20th century when rapid suburban development and use of private automobiles made parking a pivotal local political issue. This coincided with a paradigm shift in urban form from one dominated by active uses on the ground floor with multiple points of pedestrian access—what we may think of as the “Historic Mainstreet”—to auto-dominated sprawl.⁷ Parking minimums are usually determined by a formula specific to the intended use of a building, often assigning a minimum number of parking spaces based on the number of bedrooms for residential and floor area for commercial development. Parking minimums are often set too high, particularly for small residential units near centers, because they are based on the outdated assumption that parking issues arise from inadequate supply rather than inefficient management of existing supply.⁸

To meet the cost of high parking minimums, the cost of parking is typically bundled into the cost of development, increasing overall expenses and rents. In fact, parking can be one of the primary factors determining whether a new affordable development has the finances to complete construction.⁹ These costs create a feedback loop that harms local land use patterns as well. Since the cost of parking is indirect, consumers use it inefficiently, leading to greater demand for free and abundant parking, higher parking minimums, increasing housing costs, and more land dedicated to cars rather than people. Where land is scarce for parking, structured parking is often offered as a solution, but parking structures add even more to the cost of housing (approximately 12.5% according to a study by Berkeley’s Turner Center for housing).¹⁰ Cascadia found a similar pattern in Tahoe, where standards requiring covered parking in Incline Village significantly increased the cost to develop multifamily housing.¹¹ Even without covered parking, minimum parking requirements exacerbate the cost burden on working families in the Tahoe Basin. Opticos Design, Inc., in a presentation to the TRPA in 2020, cited a finding that requiring

⁶ Skelly, Jack. “California Relaxes Parking Mandates to Free Up Land for Multifamily Development—but Will Neighbors and Lenders Approve?” *Urban Land*. January 2023. <https://urbanland.uli.org/public/california-relaxes-parking-mandates-to-free-up-multifamily-development-but-will-neighbors-and-lenders-approve/>

⁷ “Planopedia,” 2023

⁸ Litman, Todd. “Parking Management: Innovative Solutions to Vehicle Parking Problems.” *Planetizen*. March 2006. <https://www.planetizen.com/node/19149>

⁹ “Planopedia,” 2023.

¹⁰ [A study of affordable housing developments](#) throughout California from UC Berkeley’s Turner Center for Housing Innovation found that structured parking added nearly \$36,000 per unit. Other studies show a 12.5% increase in development costs for each parking space.

¹¹ Cascadia Partners, 2022.

two parking spaces per multifamily unit rather than one increases monthly rents by an average of \$400 per month.¹²

Parking Management Best Practices:

Parking expert Todd Litman suggests that policymakers should view parking issues through a “parking management” rather “parking minimum” approach. Addressing parking demand at the system-level—by increasing efficiency, reducing demand, and improving enforcement and design—leads to more efficient land use outcomes and can address parking’s negative impact on affordability.¹³ Parking management solutions have been used throughout the United States, including in small towns and rural communities in the Mountain West. While not exhaustive, the list below summarizes parking management strategies that TRPA and local governments should consider to effectively manage parking while supporting people-centered land use and affordability.

- **Removing Minimum Parking Requirements** — It is important to note that removing minimum parking requirements does not mean no parking. Rather, eliminating minimum parking requirements allows the market to determine parking supply based on need rather than through government mandate. Parking minimums in the United States are typically redundant and require more parking than the market demands, especially for smaller units close to centers and serviced by transit.¹⁴ A study from Los Angeles found that when apartment parking was left to the market, developers built on average less parking than required by parking minimums (1.3 spaces instead of 2). The same study found that developers rarely built no parking at all and tended to build more parking in lower density neighborhoods without transit service. When developers chose not to build new parking, it was in cases where parking already existed and where shared parking or decoupled (see “shared parking and decoupling” below) parking options were available.¹⁵ Ultimately, when the market determines the amount of parking, lenders often have outsized influence in determining parking outcomes and research shows that most lenders are hesitant to invest in projects without adequate parking.¹⁶

Market-solutions to parking supply are most effective at reducing land dedicated to parking when applied in transit-serviced town centers. Recognizing this trend, the California State Assembly passed AB 2097, abolishing local parking minimums within one-half mile of high-frequency transit stops. The bill does not forbid parking but gives developers the option to build the parking they need for their project to be financially feasible, accounting for resident demand. San Diego has already seen an overall increase in affordable multifamily housing development and greater utilization of the City’s density bonus program since eliminating parking minimums in 2019.¹⁷ Other mountain resort communities have eliminated parking minimums as well including Bend, OR (citywide), Missoula and Bozeman, MT, and Ketchum, ID

¹² Opticos Design, Inc. Presentation to the Local Government and Housing Committee. January 6, 2020.

¹³ Litman, 2006.

¹⁴ “Planopedia,” 2023.

¹⁵ Lewyn, Michael. “A Parking Paradox.” *Planetizen*. June 2014. <https://www.planetizen.com/node/69415>

¹⁶ Skelly, 2023.

¹⁷ Secaira, Manola. “California Law Abolishes Parking Minimums for New Developments Close to Public Transit.” *Cap Radio*. October 12, 2022. <https://www.caprado.org/articles/2022/10/12/california-law-abolishes-parking-minimums-for-new-developments-close-to-public-transit/#:~:text=Governor%20Gavin%20Newsom%20has%20signed,of%20a%20public%20transit%20stop>.

(in town centers).¹⁸ As noted above, studies show that reducing parking minimums could have a significant impact on affordability in Tahoe. Additionally, experts note that removing parking minimums has the greatest impact on supporting middle-income or “missing middle” housing types.¹⁹

Nevertheless, alternatives to private automobiles are important to realizing the full benefit of public investment as well as the land use and housing benefits of market-based parking supply. Lake Tahoe communities have invested in transit and the Regional Transportation Plan continues to call for expansion of the region’s transportation network, including both transit and active transportation options. Success of the Regional Transportation Plan relies on complementary land uses that place people with a propensity to walk, ride bikes, and take transit near those transportation investments. High parking minimums diminish the value of the public investment in transit by directing scarce land resources to auto-oriented uses, missing opportunities for transit ridership. Local and regional policymakers are designing town centers to support alternative transportation through updated land use policies and increased investment in transit services. Removing parking minimums in town centers should be considered alongside other land use strategies to support active pedestrian centers in Tahoe.

- **Parking Maximums**—Parking maximums go a step further by setting a cap on the number of parking spaces provided by a development. The APA notes that eliminating minimum parking requirements, particularly in town centers, and instituting parking maximums has become common practice among a diverse range of American communities.²⁰ A survey by Strong Towns found many examples, including in small towns and rural communities, where policymakers adopted parking maximums. Examples in the Mountain West include Lyon County, Nevada, Elwood, Utah, Laramie, Wyoming, and Helena, Montana.²¹ The lakeside mountain resort town of Sandpoint, Idaho serves as another relevant example. After Sandpoint removed parking minimums downtown, they quickly saw the expansion of local businesses and new maximums freed up space for other small businesses and housing in the town center.²² Tahoe communities may consider setting parking maximums at the local-level in their town centers to support active, people-oriented land uses.
- **Shared Parking and Decoupling**—Market-based parking supply can be combined with decoupling and shared parking to maximize the efficiency of land dedicated to parking.²³ Decoupling removes the cost of parking from the cost of housing by charging for parking as a separate benefit. This could include locating parking off-site or sharing the parking demand among multiple developments through shared parking models. Decoupling has the benefit of “unlocking” underutilized parcels that would otherwise be undevelopable under conventional

¹⁸ Herriges, Daniel. “Announcing a New and Improved Map of Cities that Have Removed Parking Minimums.” *Strong Towns*. November 2021. <https://www.strongtowns.org/journal/2021/11/22/announcing-a-new-and-improved-map-of-cities-that-have-removed-parking-minimums>

¹⁹ Skelly, 2023.

²⁰ American Planning Association, “PAS No. 53.”

²¹ Herriges, 2021.

²² Reuter, John. “Why Parking Minimums Almost Destroyed My Hometown and How We Repealed Them.” *Strong Towns*. November 2017. <https://www.strongtowns.org/journal/2017/11/22/how-parking-minimums-almost-destroyed-my-hometown-and-how-we-repealed-them>

²³ Litman, 2006.

parking standards and utilizing otherwise underutilized existing parking, eliminating the need to dedicate scarce land resources to new parking.²⁴

Similarly, shared parking models recognize that existing parking is typically not designed to maximize efficiency. For example, residential parking is often underutilized during the day, while office parking is largely empty in the evenings. Shared parking models recognize the parking behaviors associated with different land uses and seek opportunities to share parking facilities when possible. The APA describes a range of options for instituting shared parking arrangements, including collecting fees from developers in lieu of private parking to construct shared public parking, reduced parking minimums based on proximity to shared parking facilities, and provisions to allow shared parking among multiple uses with different peak demand. These policies are known to promote “park once” environments in town centers.²⁵ In the Tahoe Region, ski resort parking lots could provide a major source of parking supply to relieve parking pressure in the summer months.

- **Parking Benefit Districts**—Like decoupling, parking benefit districts treat neighborhood street parking as a paid benefit rather than a public right. Local governments work with residents to set boundaries for paid parking districts in neighborhoods, providing parking permits for residents, charging non-residents, and using revenues to support enforcement.²⁶ Benefit districts have been successfully implemented in Santa Fe, NM where tourism pressure threatened limited parking supply in neighborhoods.

Other Considerations

The following concerns were identified through discussions with local jurisdiction staff and the community when reductions to parking standards were suggested. TRPA and local governments should consider these issues when developing parking management policies.

- **ADA Parking Requirements**—the Americans with Disabilities Act sets requirements for design of accessible parking spaces and the ratio of accessible parking spaces to standard parking spaces in a development. For example, lots with up to 25 spaces must provide 1 accessible space, lots with up to 50 spaces must provide 2 accessible spaces, etc. These requirements are established by federal law. Developers and municipalities must comply with ADA standards regardless of local parking standards.²⁷ In a market-based parking supply scenario, whatever parking is provided must comply with ADA ratios for accessible parking.
- **Snow Removal and Storage**—In many Tahoe communities, excess parking spaces in lots and on the streets serve as locations for winter snow storage. There are concerns that the potential loss of excess parking for snow storage could lead to parking shortages in the winter. In a conversation with TRPA staff, planners from the City of Sandpoint, Idaho stated that they have not witnessed a noticeable conflict between snow and parking management since repealing parking minimums in their town center. Sandpoint planners see short term rentals, not parking minimums, as the primary source of parking conflict during winter months. Sandpoint enforces one-sided street parking between October and April to accommodate snow removal and

²⁴ Skelly, 2023.

²⁵ American Planning Association, “PAS No. 53.”

²⁶ Halbur, Tim. “Rethinking Parking.” *Planetizen*. July 2009. <https://www.planetizen.com/node/39833>

²⁷ U.S. Dept of Justice, Civil Rights Division. “Accessible Parking Spaces.” <https://www.ada.gov/topics/parking/>

storage on public rights-of-way. The City also requires that private developers show how they will store snow on site. Similarly, Helena, Montana's parking manager stated that private developers must show how they will remove or store snow on site regardless of parking requirements and that conflict with illegally parked boats and RVs pose a greater challenge to snowplows than limited street parking.

- **Neighborhood Spillover and Enforcement**—Relaxing or removing parking minimums often raises concerns that market-based parking supply will lead to a parking shortage and spillover into neighborhoods. However, studies find that without parking minimums the market develops adequate parking to meet demand and that spillover is even less of an issue in car dependent communities where parking is already overabundant due to greater land availability and higher demand for parking.²⁸ Nevertheless, parking management strategies like benefit districts can prevent neighborhood spillover.
- **Transit and Parking Reduction**—Alternatives to private automobiles are important to realizing the full land use and housing benefits of parking management. One challenge communities face is the need to build transit options simultaneously with reducing parking requirements. Tahoe, like many smaller communities, currently has hourly transit headways while more frequent transit is planned for in the future, when town center housing densities are high enough to support the higher ridership needed for these higher frequencies. This raises a classic chicken-and-egg scenario: we need people-centered land use in town centers to support transit service, but successful people-centered land uses depend on quality transit service. This scenario requires that land uses anticipate the planned transit and align parking requirements accordingly.

²⁸ Lewyn, 2014.