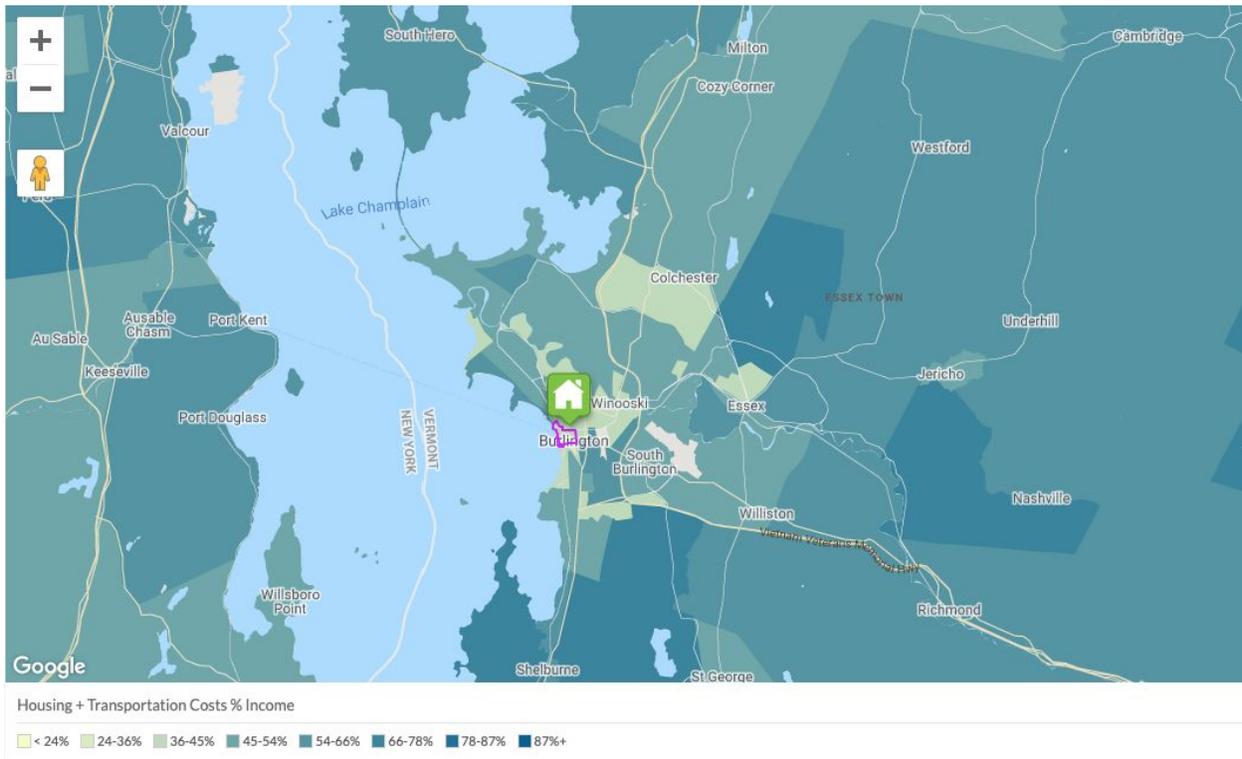




# Homes for People, Not Cars

Final Report for FY2020 UPWP Project  
Prepared for the CCRPC, Fall 2020



Credit: Center for Neighborhood Technology, <https://htaindex.cnt.org/>

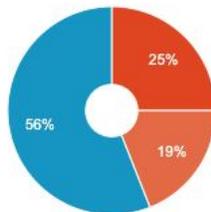
## Introduction

It's not often that carsharing is seen as a potential solution for concerns about increasing housing cost burdens in Burlington and beyond. But at the start of January 2019, CarShare Vermont committed itself to highlighting the role that transportation and parking costs play in housing affordability. We know that car ownership is expensive, but its true costs are often hidden in a way that encourages more car ownership and driving. Estimates of the cost of car ownership to an individual or household in Vermont range from roughly \$8000 to \$12,869 annually when factoring in insurance, fuel, maintenance, and depreciation costs.<sup>1</sup> While some Vermonters may find more affordable housing in more suburban or rural areas than Burlington (or even within Burlington), those locational decisions might also omit the high cost of car ownership and driving necessitated by a lack of sustainable transportation infrastructure and options.

### Average Housing + Transportation Costs % Income

Factoring in both housing *and* transportation costs provides a more comprehensive way of thinking about the cost of housing and true affordability.

● Housing  
● Transportation  
● Remaining Income



### Transportation Costs

In dispersed areas, people need to own more vehicles and rely upon driving them farther distances which also drives up the cost of living.



Credit: Center for Neighborhood Technology, <https://htaindex.cnt.org/>

Similarly, municipally-mandated parking costs can be a hidden housing cost, with one to two “free” spaces accounting for 12.5% to 25% of housing costs per unit.<sup>2</sup> Excess parking also has spatial implications for how much housing can be built, whether housing can be built at all, and on the quality of sustainable transportation infrastructure and its success attracting trips to be made by modes other than private vehicles. Taken together, these hidden vehicle and parking costs can contribute to an overall higher cost of living--housing and transportation. With the

<sup>1</sup> “The Most Expensive States to Own a Car.” *US News & World Report*. January 7, 2020.

<https://cars.usnews.com/cars-trucks/most-expensive-states-to-own-a-car>

<sup>2</sup> Littman, Todd. “Parking Requirement Impacts on Housing Affordability.” Victoria Transport Policy Institute, June 5, 2020. <https://www.vtpi.org/park-hou.pdf>

award of this grant, CarShare Vermont had proposed to “deepen its potential to make residential living costs in Burlington more affordable by making more visible the various connections between transportation and housing costs.” We are proud to share this report on our progress, which includes significant changes to Burlington’s development ordinances and new directions for our own organization.

## Scope of Work

CarShare Vermont’s initial proposal centered on two goals: first, to build more consumer awareness through partnerships with local financial institutions of how car ownership can impact housing affordability, and second, to research and develop a sharing model with partners like HomeShare Vermont which could support the construction of more accessory dwelling units (ADUs). Concurrently, we also hoped to help reform the city’s minimum parking requirements, encouraging the elimination of minimums, the reduction of parking maximums, and the implementation of new requirements for unbundling parking costs and other transportation demand management (TDM) measures.

While consumer education remains an important part of the cultural shift necessary to decrease vehicle ownership, vehicle miles traveled, and the associated emissions, our introductory conversations with local banking institutions yielded little interest in partnering to incorporate this into financial planning with their members or customers. Although discouraging unnecessary vehicle ownership could help put homeownership within reach for some and significantly increase eligible mortgage amounts for others, there is still a known market for car loans that may be hard for these institutions to walk away from. The pandemic certainly hampered our later efforts to engage more on these issues with financial institutions, but it soon became clear that CarShare Vermont would have a greater impact on housing affordability and access to sustainable transportation options by supporting, with our research and expertise, changes to municipal development regulations.

## Mayor’s Housing Reforms

In June of 2019, Mayor Weinberger and his administration hosted a BTV Housing Summit to gather input from the community on five proposed areas for reform. CarShare Vermont Executive Director Annie Bourdon and Director of Planning and Operations Patrick Murphy both attended and provided feedback on two of these areas, which happened to align with issues raised in our earlier grant submission and work plan for the year:



BTV Housing Summit, June 2019. Credit: City of Burlington

accessory dwelling units and minimum parking requirements. Seeing an opportunity to inform public discussion and debate at the intersection of housing and transportation issues, we began to focus our attention on supporting this work through the sharing of our research and expertise in transportation demand management. Throughout the deliberative process, we attended multiple public meetings before the Planning Commission, the Joint Planning and Ordinance Committee, and the full City Council; offered oral and written testimony with suggestions for draft ordinance language; met with administration officials, developers, and other TDM and community partners; all to help advance changes that CarShare Vermont believed would increase housing affordability and transportation sustainability.

## CarShare Vermont's Impact

### *Accessory Dwelling Units:*

CarShare Vermont began this project with the understanding that not only could sustainable transportation offerings facilitate the development of more affordable accessory dwelling units (ADUs), but that the new units themselves could be a transportation solution, reducing the need for a personal vehicle and reinforcing a better transportation network for walking, biking, carsharing and public transit by increasing neighborhood density in a relatively simple and unobtrusive way. As shown by the map on our cover page developed by the Center for Neighborhood Technology, location matters; by facilitating the development of affordable housing (whether “naturally occurring” or through regulation) in dense, walkable, transit-served areas, municipal government can help reduce private vehicle ownership and use, while also reducing combined transportation and housing costs.



ADU in Five Sisters neighborhood. Credit: City of Burlington<sup>3</sup>

homeowners but struggling to find an affordable home to purchase. Current state law precludes

We identified two significant barriers (among others) to building this housing type in place of garages and storage for cars. The first was financial, and we hoped to work with HomeShare Vermont on a model of sharing akin to a mini-land trust. The idea was to solve for a mismatch of resources and building opportunities by matching homeowners struggling to keep up with mortgages and other housing costs with those wishing to become

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<sup>3</sup> “Accessory Dwelling Units in Burlington.” CEDO Report, February 7, 2019.  
[https://www.homesharevermont.org/wp-content/uploads/2019/02/ADU\\_Whitepaper\\_2\\_6\\_19.pdf](https://www.homesharevermont.org/wp-content/uploads/2019/02/ADU_Whitepaper_2_6_19.pdf)

such a logical subdivision of property, and thus proved too difficult to pursue during the grant period.

However, CarShare Vermont was able to make progress with the second barrier identified--the parking requirements for ADUs--both for existing units and a minimum of one space per newly constructed ADU. Clearly these parking requirements posed financial hardships for those wishing to add an ADU, but more importantly spatial challenges given limited land availability, unique site designs, and significant lot coverages in conflict with other development regulations. As a result of efforts by HomeShare Vermont, CEDO and others, in March 2020, the City Council passed an ordinance change which removed all parking requirements for the construction of Accessory Dwelling Units, as well as other measures to streamline the permitting process. Over time, as more projects are undertaken this should allow for more density that can create marginal gains in affordable housing units, while increasing the demand for public transit and other sustainable transportation options like biking and carsharing.

#### *Minimum Parking Requirements:*

In his parking treatise [The High Cost of Free Parking](#), Professor Donald Shoup remarks incredulously on how city “zoning requires a home for every *car* but ignores homeless *people*...People sleep in the streets, but cars park free in their ample off-street quarters.”<sup>4</sup> Worse, minimum parking spaces required through zoning make it harder and less likely that more affordable housing can be built and provided for those now homeless. Just as in the case of accessory dwelling units--albeit on a different scale--parking requirements can add significant costs to the design and construction of housing or prevent it from being built altogether. Through our grant work, CarShare Vermont aimed to clearly demonstrate the real costs of parking on housing developments, how to lessen the potential negative consequences on neighborhoods of eliminating parking minimums and deepen the gains in affordability for residents.

In order for an ordinance change to minimum parking requirements to be as effective as possible, CarShare Vermont identified several key points. First, no meaningful parking reform should remain silent on the issue of parking and transportation demand management necessary to efficiently manage parking resources. As the Metropolitan Area Planning Council in Massachusetts has recommended, “a key to success when eliminating minimum parking requirements is to minimize the potential for spillover effects--this is, after all, what the minimum requirements are intended to do – and ensure that there are other ways for people to access the

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<sup>4</sup> Shoup, Donald. *The High Cost of Free Parking*. American Planning Association, 2013. New York: Routledge, 2005. (p. 153)

site.”<sup>5</sup> Minimum parking requirements may be a poor tool for addressing transportation needs of residents, but their elimination should be replaced with a better tool--TDM requirements--rather than no tool at all. The MAPC report goes on further to suggest addressing some of these concerns through a residential parking program--by more appropriately pricing on-street parking--which can be made more palatable with the introduction of parking benefit districts that reinvest parking revenue within neighborhoods. This is for a longer-term discussion to which we will return later. However, CarShare Vermont did view the introduction of transportation demand management (TDM) requirements as an essential part of any parking reforms for three reasons: to provide for genuine alternatives to the costly option of owning a private vehicle that allows and further encourages developers to actually build less parking, to mitigate potential spillover issues in certain neighborhoods in the absence of residential on-street parking changes, and to fully realize the promise of affordability for residents of new developments.

Contrary to this view on TDM requirements, there were a few arguments that were asserted during public presentations, hearings and discussion that are worth addressing here. There was some discussion that zoning ordinances were not the best place to deal with parking and transportation demand management--that other cities pursue a more holistic approach to transportation than such a piecemeal approach with only new development. CarShare Vermont agreed that a citywide mobility plan makes enormous sense, and we are committed to working towards such an outcome with the administration, City Council, and Public Works Commission. Yet municipal government structures in Burlington do not yet lend themselves to a coordinated strategy on a citywide TDM plan. In fact, existing zoning ordinances do govern minimum parking requirements *and* transportation demand management measures through the partial, full or blanket waiver of parking requirements and approval of parking management plans. Indeed, it is within this structure that we are forced to work until future changes are enacted. Nevertheless, new TDM requirements for development or substantial redevelopment offer examples to evaluate and possibly emulate in a more broadly-applied TDM effort.

Perhaps the most contentious debate was whether certain TDM requirements were too onerous on developers so as to render null the affordable housing benefits that might come from the elimination of parking requirements. The administration argued that by requiring TDM measures be implemented at new developments, the city would be imposing a new burden in place of an old one, and that it should instead be left to “the market” to produce more housing affordability. CarShare Vermont and other proponents of TDM strategies disagreed, seeing the need for affordable alternatives and a singular opportunity to introduce new, more appropriate requirements as developers stand to benefit financially from the elimination of parking requirements. We also worked to communicate with members of the Planning Commission,

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<sup>5</sup> Un, Kit. “Eliminating Minimum Parking Requirements: When Required Minimums Do More Harm Than Good.” February 26, 2013.

<https://www.mapc.org/resource-library/eliminating-minimum-parking-requirements/>

Ordinance Committee, and City Council, on what the true costs of parking really are. Building on Todd Litman's parking costs calculator, CarShare Vermont developed a TDM and parking cost calculator particularized to the Burlington housing market. While one of our proposals was not ultimately adopted into the ordinance changes, it did clearly demonstrate that there was much more room for significant TDM measures without overwhelming development costs.

TDM & Parking Cost Calculator		
	Multi-modal Mixed-use Corridors	Central Business District
Housing Units (Proposed)	48	
Minimum Parking Required (per unit before changes)	1	
Total Parking Spaces (Proposed)	25	
Monthly Parking Costs (per space for developer)	\$193	\$345
Parking Utilization (% of spaces leased)	85	
Minimum Monthly TDM Subsidy required	\$50	
Price of unbonded parking space (for tenant)	0	
Minimum TDM subsidy requirement	\$3,200	\$0
Maximum TDM subsidy requirement	\$3,448	\$0
Monthly Net Savings/Costs from Changes (max)	-\$112	\$0
(min)	-\$352	\$0
Monthly Parking Revenue	\$1,260	\$0
Monthly Net Savings/Costs (incl. parking revenue)	\$1,008	\$0
Annual Net Savings/Costs	\$12,096	\$0

\*Enter proposed number of units (10 or more)

Costing parking requirements also differ within the proposed multi-modal mixed-use district.

\*Estimated costs based on Litman's calculations. Does not include higher costs for abstracted parking. Change land costs on next tab "Costs" in order to modify.

\*Enter less than 100 to estimate costs if only a fraction of spaces built are actually used.

\*Use to include revenue from parking spaces in analysis.

TDM Calculator developed by CarShare Vermont, 2020.

Inherent in the competing arguments about transportation demand management is really a larger argument about housing, land, supply and demand, and markets themselves. Though it is somewhat outside of the scope of this project and often deemed outside the scope of most transportation projects, we cannot ignore the unintended impacts that public policy and investments can have on the affordability of land and housing, particularly because our specific aim here is to increase affordability. While the elimination of parking requirements allows developers to build more units with fewer land acquisition and parking costs, there is no guarantee that developers build less parking, nor that the developer passes along the savings to tenants if they do. In fact, creating the possibility of more units for any given parcel of land, increases the value of land and can increase costs per unit of housing if actual parking is not reduced. Just as Shoup has noted that because “parking requirements...increased development costs and reduced feasible density, land values fell by 33 percent,” so too it follows that their elimination would reduce development costs, increase density, and thereby increase land values.<sup>6</sup> Even when a proposed change like the elimination of parking requirements is clearly a positive step, as with other transportation projects that improve street design for walking and biking, policymakers must also consider additional housing protections to ensure that there are not adverse consequences experienced as a result of higher land values. Lastly, we heard from developers during public hearings that they may continue to provide spaces for each housing unit, because it is the market, they argue, which dictates how much parking is built, not government. Government officials argued the flip side of this thinking, recommending against TDM requirements that addressed a problem believed only resolved by the market. It is

<sup>6</sup> Shoup, Donald. *The High Cost of Free Parking*. American Planning Association, 2013. New York: Routledge, 2005. (p. 145)

therefore important to note here that *governments* shape markets--the one is not an independent force from the other--and if government requires less parking and more TDM measures of all developers, there should be no competitive disadvantage. The contours of the market would simply be different, and account for more sustainable transportation options.

It is with this perspective that CarShare Vermont strongly supported transportation demand management requirements. Beyond the inclusion of significant TDM measures into the administration's proposed ordinance changes, CarShare Vermont worked to highlight several other issues which ultimately were included in the final draft for the City Council's vote a year later, including unbundling parking costs from the cost of residential or commercial leases and a robust transit and carsharing benefit for tenants and employees. Again, Donald Shoup, in [The High Cost of Free Parking](#), makes a compelling, data-driven case for these three policies to "reduce demand rather than increase [parking] supply": 1. Fully-subsidized transit passes ("Eco Passes"); 2. parking cash-out; and 3. carsharing.<sup>7</sup> In summary, our recommended language changes resulted in the following:

- Lowered the maximum parking requirements, and removed the exemption of spaces in underground or structured parking from those requirements, in order to prevent the overbuilding of parking and the vehicle ownership and miles traveled induced by it.
- Lowered the threshold for applicability of TDM requirements, so that more residents and employees of developments may benefit from the identified TDM measures.
- Added a requirement for developments to provide a free public transit pass in the first year of a tenancy or employment, and 50% discount in each of the subsequent nine years, significantly increasing the value of the benefit to tenants.
- Added a requirement for developments to pay for a free carshare membership in the first two years of a tenancy or employment, and 50% discount in each of the subsequent eight years, likewise making more sustainable transportation modes more affordable.

These improvements are in addition to what the original language provides:

- Eliminates parking requirements in a newly created Mixed-use Multimodal District including the downtown core and major public transit corridors
- Where parking is provided, requires developers to annually report on parking data and success of management strategies, as well as provide priority spaces for carpooling and carsharing.
- Requires the unbundling of parking costs from a lease, residential or commercial.
- Encourages shared parking arrangements, and changes acceptable parking dimension standards.

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<sup>7</sup> Shoup, Donald. *The High Cost of Free Parking*. American Planning Association, 2013. New York: Routledge, 2005. (p. 251-271)

- Provides for a process by which existing developments may opt out of old parking requirements.<sup>8</sup>

### Areas for Future Research and Action

CarShare Vermont is happy to report that our research and technical assistance was able to successfully support important changes to parking requirements for accessory dwelling units citywide and to larger developments within a newly created Multimodal Mixed-Use District. It will be interesting to see how developers and tenants alike will respond to these new rules and what the impacts will be on housing affordability, vehicle ownership and vehicle miles traveled. Originally we set out to work with financial institutions to help make tenants aware of the high costs of vehicle ownership and locational decisions, but our focus quickly shifted to help make developers and policymakers more aware of the high costs of parking, which encourage vehicle ownership and limit locational choices. Future research and action may help to bring this awareness to financial institutions not so much for their average consumer's benefit, though that is certainly important, but for the development proposals they consider for financing. As developments are able to demonstrate more and more, through their successful TDM programs, an ability to both build less parking and still attract residents, these financial institutions should likewise develop a more nuanced evaluation of projects and their actual parking needs.

During our discussions with city leadership and officials, it became clear that Burlington needs to do much more work on crafting and implementing a citywide Mobility Plan. While the pandemic has disrupted municipal budgets and likely postponed such a comprehensive effort, there are certainly key aspects of a Burlington Mobility Plan worth taking up now. In the preface to the 2011 edition of *The High Cost of Free Parking*, Donald Shoup summarizes his 750-page book as a recommendation for three basic policies: "(1) set the right price for curb parking, (2) return the parking revenue to pay for local public services, and (3) remove minimum parking requirements."<sup>9</sup> Now that Burlington has completed task three (in part), we should be moving toward the first two. Understanding the relationship between on-street parking prices and off-street parking requirements, the city will have to account for potential spillover effects of new developments and commit to reducing inadvertent support for vehicle ownership, miles travelled and all the associated financial and environmental costs. There are various policies and programs to consider in the coming years--from changes to the residential parking permit program and its pricing, parking and curb-cut taxes to end what amounts to private and public

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<sup>8</sup> City of Burlington Planning Department. Memo on Proposed CDO Amendment ZA 02-04: Minimum Parking Requirements. [https://go.boarddocs.com/vt/burlingtonvt/Board.nsf/files/BTASTB6F991B/\\$file/ZA-20-04%20Parking%20Memo\\_Council%20second%20reading.pdf](https://go.boarddocs.com/vt/burlingtonvt/Board.nsf/files/BTASTB6F991B/$file/ZA-20-04%20Parking%20Memo_Council%20second%20reading.pdf) September 2020.

<sup>9</sup> Shoup, Donald. *The High Cost of Free Parking*. American Planning Association, 2013. New York: Routledge, 2005. (p. xix)

subsidies for driving, local option gas taxes to fund sustainable transportation projects, and parking benefit districts to ensure that all residents can see and experience the benefits of local parking revenue at work. CarShare Vermont looks forward to engaging in these discussions and continuing to offer its own technical expertise as a nonprofit TDM provider in Burlington.

Lastly, CarShare Vermont has reflected on our own service, and continues to explore funding sources and ways in which we can become more accessible to a broader group of people. Although we know from annual surveys that we serve residents of all income levels, ages, and backgrounds, we also believe there is unmet demand for carsharing in certain areas of the city and particularly among households with lower incomes and already lower rates of car ownership. Members of our current MobilityShare program, which provides free memberships and the lowest driving rates for a group of income-eligible residents, have been some of our most consistent users (even throughout the pandemic) and clearly rely on the service to meet basic trip needs. And while affordable housing developments may have their own parking requirements through their sources of funding (independent of municipal development regulations), CarShare Vermont hopes to help proactively reduce vehicle ownership and the associated costs while increasing mobility with a proposal to expand all-electric carsharing to public and affordable housing developments. We are also developing plans to extend our free MobilityShare membership to all neighbors living in such developments, their eligibility determined by virtue of their residency, and to think about how we might address a variety of potential barriers like issues of banking, language, and/or smartphone access. And finally, we are seeking ways to deepen collaboration with our partner GMT to provide a cooperative and holistic approach to transportation offerings that can better serve residents of new and existing developments.

With this *Homes for People, Not Cars* project, CarShare Vermont has contributed to some meaningful public policy changes which not only highlight the interrelationships of housing and transportation, but make real the possibilities of more affordable housing options with the provision of services like public transit, bike- and carsharing. Further, the results of this project are leading to renewed and new partnerships with various community organizations with whom we hope to sustain this value-driven work to make Burlington a more affordable and livable place for everyone.

We wish to thank the Chittenden County Regional Planning Council for its generous funding to make this project possible.