



Perceptive Parking: Reimagining Parking Management in Williamstown, Massachusetts

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Land Acknowledgement

We respectfully acknowledge that Williamstown stands on the ancestral homelands of the Stockbridge-Munsee Mohicans, who are the Indigenous peoples of the region now called Williamstown. Following tremendous hardship after being forced from their valued homelands, they continued as a sovereign Tribal Nation in Wisconsin, where they reside today. We pay honor and respect to their ancestors past and present as we commit to building a more inclusive and equitable space for all.

Executive Summary

This project seeks to inform the Williamstown Planning Board on parking supply and demand in Williamstown as well as provide recommendations for how the town's transportation needs can be met most efficiently while minimizing both environmental and fiscal costs. We conducted a literature review to better understand the current academic consensus on parking and determine what Williamstown could learn from similar towns. We also conducted a regulatory audit to determine what the Williamstown bylaws require regarding parking and transportation and a physical audit to assess actual parking stock and usage. Finally, we interviewed a wide array of community stakeholders to better guide us in assessing what transportation needs are not being met. Our physical audit revealed the sheer quantity of parking spaces that Williamstown possesses — 5571 spots in total — and the low utilization of these spots in the aggregate of 37%. Simultaneously, our interviews revealed that many believe Williamstown does not have enough parking where needed and are frustrated by the struggle to find parking during peak usage. In essence, Williamstown faces a parking management problem. Our recommendations include eliminating or modifying parking minimums, permitting organizations with different peak hours

to share parking, charging for parking in peak demand areas, and improving parking information and enforcement. Doing so will help reduce excess supply going forward and redistribute excess demand such that there are fewer parking crunches. Using our infrastructure suboptimally raises costs, has environmental consequences, and makes our town less enjoyable to live in. Our report outlines what can be done to address this problem.

Introduction

Project Goals

The goal of this project is to create a current snapshot of parking infrastructure, parking use, and parking bylaws in Williamstown. Based on this picture, we provide recommendations to the Williamstown Planning Board about steps they can take to optimize current infrastructure usage and integrate best practices into regulations moving forward.

Community Profile and History

We are examining the Town of Williamstown, located in Berkshire County in the Northwest corner of Massachusetts. The town had 7,663 people as of 2022, is 82.9% white, and has a \$95,682 median household income (United States Census Bureau 2022). The town lies at the intersection of two substantial highways, U.S. Route 7 passing from north to south, and Massachusetts Route 2 passing from east to west. Prior to this study, there existed no complete map of parking in Williamstown. Williamstown is a relatively car-dependent rural town, and, as such, has spent the last several decades building up car-centric infrastructure through requirements like parking mandatory minimums. Further, according to the Williamstown Community Development Director, Andrew Groff, Williamstown is one of the highest net labor importers in Berkshire County. Williams College and the businesses that surround it are often staffed by people who cannot afford to live in Williamstown, leading to a substantial population that drives into Williamstown on weekdays. Car ownership in Williamstown, MA is approximately the same as the national average, with an average of 2 cars per household (Deloitte and Datawheel, n.d.).

For this study, in order to constrain the scope to the most relevant parts of town, we are looking exclusively at non-residential parking in the town's general residence zone (GR), marked with yellow in Figure 1. The broader town is more rural, featuring less development and more sparse parking. This, combined with time and resource constraints, led us to limit our scope to the GR zone. The smaller purple region within GR is Williams College.

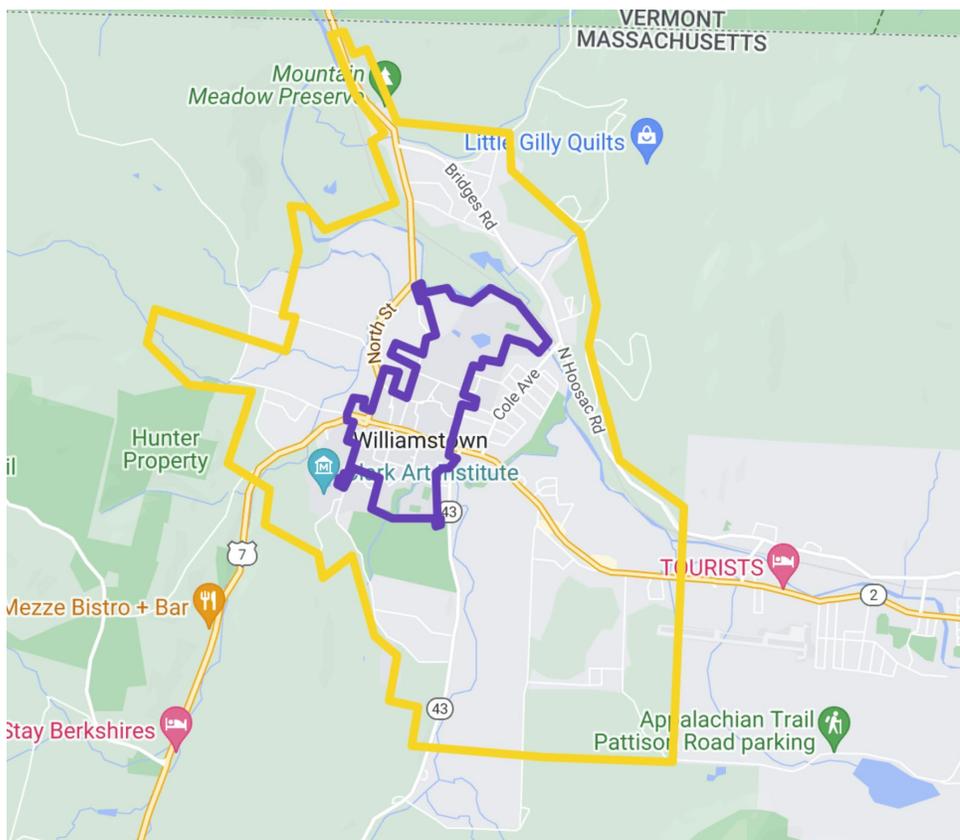


Figure 1. Map of Williamstown General Residence zoning region (yellow) and Williams College (purple) borders. Link to the map can be found [here](#).

The Problem: Parking Management and Supply

Parking is generally only noticed when there is not enough of it. In a place like Williamstown, the feeling that there is not enough is pervasive. Security guards for Williams College, town police officers, and business owners all discuss this. People generally like to park as close as possible to where they are headed, so parking further away can feel like a substantial

burden. Further, because of the College, Williamstown experiences massive spikes in demand during events like graduation, but also experiences long stretches of time when demand is limited, like the summer. These demand fluctuations make it difficult to accurately assess parking supply.

A mismatch of parking supply and demand comes with substantial downsides that are worth recognizing. Too little supply leaves people frustrated. Too much parking supply, in addition to wasting money in the form of excess asphalt and real estate costs, comes with substantial economic opportunity cost. Every parking lot that goes unused could be another development or green space. While a single given business may want parking right next door, if every business has its own parking lot, it negatively impacts the overall community aesthetic. All businesses suffer from large unused parking lots dominating the surrounding landscape. There are also substantial environmental costs in the form of the CO₂ produced from asphalt (Ma et al. 2016), more polluted runoff (Gillis, Parrott, and Helman 2022), and increased risk of flooding due to more impervious surfaces. Finally, there are safety issues for pedestrians, as more car-centric infrastructure and excess parking makes the town less walkable.

This leaves several questions worth considering:

1. How much parking does Williamstown actually have?
2. What does its usage look like?
3. What can the Williamstown government and other large organizations in the town do to ensure that there is enough parking for all while minimizing costs?

To answer these questions, we conducted a literature review to understand what other communities in situations like Williamstown have done, a regulatory audit to understand what

current town bylaws require, a physical audit to understand parking supply and demand, and finally several interviews to better grasp how the community perceives parking.

Literature Review

In evaluating existing parking literature, we surveyed prominent voices in parking reform, looked at other college towns, and assessed regional parking and development studies that have been conducted near Williamstown.

The High Cost of Free Parking by Donald Shoup discusses how parking minimums have broken parking, what change looks like, and how to make that change happen (Shoup 2005). Following the advent and widespread adoption of the automobile, cities around the USA adopted parking minimums to ensure that as cities grew, parking capacity grew with them. From the perspective of driving, this was an enormous success. Parking is incredibly convenient today — 99% of all parking in America is free, and 87% of people drive on every trip they take. While this solved the parking problem, it harmed businesses, people, and environments in cities. So much land has been devoted to parking that the cost of real estate is higher than necessary, particularly in cities. On average, in cities with over a million people, 22% of land in the city center is used exclusively for parking (Fox and Martichoux 2023). When nearly a quarter of all land is used for parking cars, goods and services get more expensive as developers pass these costs to consumers. Further, spending so much on parking development is regressive. Wealthier people tend to own more cars and drive more often, so every dollar spent by businesses and towns to subsidize parking disproportionately benefits those individuals. In urban areas, while low-income people are stuck on underfunded and slow public transportation, wealthy people can park in spots that are legally mandated. To solve this problem, Shoup predominantly advocates

the removal of mandatory minimums, adding the cost back to parking via metered parking, and so-called “parking benefit districts,” where the money from parking meters goes back into the community. Shoup believes that people do not prefer to drive, they instead prefer the best value and convenience, which just happens to have been legally mandated as driving. Charging for parking means that parking will be returned to more of a market good. Places with more demand are more expensive, returning some of the costs associated with preserving parking to the community.

Paved Paradise: How Parking Explains the World by Henry Grabar builds on Shoup’s foundational text and works to unpack how parking has come to dominate American towns and cities. Grabar succinctly breaks down how Americans like their parking: convenient, available, and free. A history of parking can be built up from the understanding that Americans not only desire but expect these three descriptors. He investigates several cities to illustrate how obsession with parking has accelerated the climate crisis and exacerbated the housing shortage (Grabar 2023). In New York City, for instance, even as parking has been mostly relegated to side streets, there are still hundreds of thousands of square feet of some of the most expensive land in the world dedicated to parking that is totally free. By allowing free parking, the burden of maintaining parking is shifted away from the 45% of New York households that own a car and towards all the city’s taxpayers (“New Yorkers and Their Cars | NYCEDC” 2018). Grabar also connects the phenomenon of mandatory minimums in American towns and cities to policies intentionally designed to keep out affordable housing developments. Mandatory minimums encourage low density housing which is inherently more expensive and ultimately keeps towns homogenous — both socioeconomically and racially.

In addition to these books, there are several advocacy groups dedicated to fighting car dependency. Strong Towns is a non-profit advocacy group that argues suburbs and car-centric design are economically unsustainable, advocating for incremental solutions through media, community campaigns, and planning suggestions (“Build Your Strong Town,” n.d.). Specifically, they want to end parking mandates and subsidies for parking. They encourage density and believe less parking makes for a healthier community, both economically and culturally. Groups like the Parking Reform network highlight the connection between parking and urban planning in general, discussing how excessive parking tends to limit the availability of abundant affordable housing, bike lanes, and transit improvements (“Why Parking Reform?,” n.d.).

In terms of similar towns to Williamstown, we looked to Davidson, NC, as an example of what an effective downtown parking map would look like (“Map of Parking in Davidson,” n.d.). By clearly labeling the amount of parking they have and its location, the town is able to effectively direct people to parking during demand spikes and can better evaluate how much parking new developments actually need. Hanover, NH, provided an example of what the results of a comprehensive parking audit should be (“Town of Hanover - Inventory of Parking Spaces” 2019). Similarly, this kind of audit provides the town with information crucial to understanding how much parking a new development requires.

Additionally, “Paved in North Adams: Parking Utilization and Development Solutions” by Ben Corwin, Paul de Konkoly Thege, Jessica Luning, and Dan Zilkha provided invaluable guidance on what a comprehensive project looks like (Corwin et al. 2019). They also supply helpful background in their method for evaluating the usage of parking spots to create a

framework of optimal usage. A lot is considered optimally utilized if 70% of spots are occupied and full or overutilized if over 85% of spots are used. The Williamstown 2035 Comprehensive Plan aspires to develop alternative parking solutions and modes of transportation, convert on-street parking into temporary pocket parks, and reduce parking requirements, providing relevant background for our project (Williamstown Select Board 2019). Finally, the Williamstown Property Map allowed us to determine which lots are open to the public versus owned by the college and which lots are within the General Residence zone, which is the scope of our analysis (Williamstown, n.d.).

The key takeaway from our literature review is that the problems Williamstown faces are not unique. Parking management is a pervasive problem, and leaves towns with too many parking spaces in all the wrong places. Mandatory minimums and free parking spreads buildings out, limiting the walkability of downtowns and ultimately perpetuating car dependency. The result of this system is that it is difficult to live in a small town or even explore some downtowns without a car. This is, however, a solvable problem. The solutions we suggest throughout the rest of this paper are not revolutionary, nor would we be the first to do them. They are actions that towns around the United States have already taken in order to decrease needless parking lots, use parking supply more efficiently, and create more parking supply where it is needed without building more lots.

Regulatory Audit

Evaluating the current laws in Williamstown is crucial to understanding how the built environment of Williamstown has been impacted by the regulatory code. All information for this audit comes from the Williamstown bylaws (Williamstown Select Board, n.d.). Identifying how the regulatory code has shaped parking outcomes like surplus parking will help us to see what should be changed.

The main takeaway from the survey of the regulatory code is that parking is intensely regulated in Williamstown. The town controls the amount of parking any given development must build down to the specific number, allowing no less and no more than what is stipulated. They explicitly prohibit double counting, or shared parking. According to bylaw §70-6.1, single-family and two-family dwellings must have one parking space for each dwelling unit within it and sufficient off-street parking for visitors and employees, while multifamily dwellings must have one off-street space per dwelling unit, plus an additional off-street space for every three dwelling units within a building. Schools require one parking space for each classroom and office within it, plus one parking space for every three seats in the auditorium. For places providing overnight accommodation there must be one parking space for each room providing accommodation within it, plus one space for every two employees, and adequate spaces for delivery vehicles. Restaurants must have 1.5 spaces for every four seats and one space for every two employees, as well as adequate spaces for delivery vehicles. Any other service and retail establishments require one parking space for every 250 square feet of gross floor area, excluding storage areas, plus one space for each two employees, and adequate loading spaces. Offices, research and development facilities have similar requirements, requiring one space for every 250

square feet of gross floor area, plus adequate loading spaces. Warehouses, industrial and manufacturing establishments require one space for every 1,000 square feet of gross floor area, plus adequate loading spaces. Assisted living residences require 0.6 space per dwelling unit or seven spaces, whichever is greater. Finally, any non-listed uses require whatever amount of parking the Planning Board deems necessary. According to members of the planning board, most proposals that come before the planning board fall into this last category, meaning that it is often up to the developers and planning board to estimate how much parking space a given development needs.

The bylaws do, notably, allow for overflow parking on grass, fields, and streets, expanding the ability of Williams college to meet excess parking demand during spikes like Graduation without more pavement. The bylaws contain further rules regarding where required parking must be in relation to the development and what the parking lots are made of. It is worth noting that there is not an explanation for why these requirements are what they are. Parking regulations tend to be planning board members' best guesses for the parking supply a certain kind of development needs at the time they were drafted, meaning they are often quite arbitrary.

The result of all this strict regulation is that every lot is built for peak usage of the corresponding development. Each business or home is required to create the maximum amount of parking it could feasibly need. Further, any deviation from these bylaws requires a special permit from the Planning Board, meaning that even businesses with viable alternative forms of transportation will have to go through an approval process and could be rejected.

Physical Audit

For our physical audit, we assessed the current quantity, layout, and usage of parking in the General Residence zoning area of Williamstown. The first step we completed was to map out all parking using the “My Map” feature of Google Maps. We labeled all non-residential parking in Williamstown General Residence, including on-street parking (orange), commercial (blue), and student and faculty lots (purple). As shown in Figure 1, we broke the General Residence zone (outlined in yellow) into an additional subsection, Williams College (outlined in Purple). A link to the full, navigable map including all labeled parking lots is available [here](#). Clicking on each given lot will reveal the number of parking spots in each lot. A more detailed view of the Williams College zone is shown in Figure 2.

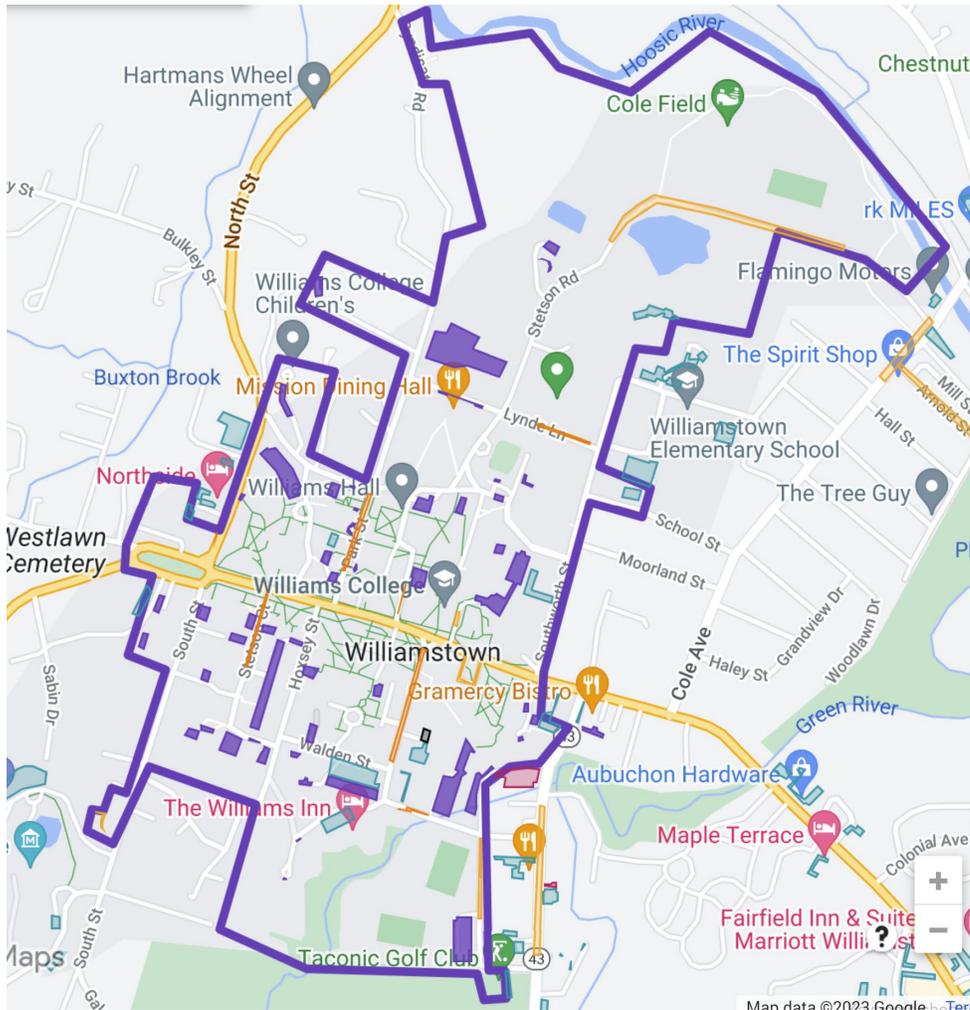


Figure 2. Parking in central Williamstown. Williams College (Purple), Commercial (Teal), On-Street (Orange), Other (Red).

Also relevant is Figure 3, which circles all the parking within a half mile radius of downtown Williamstown, which is generally considered around the distance people are willing to walk. Within this radius there are 987 commercial and public spots, including on-street parking and unofficial lots like the old town garage site but excluding the Clark, the Clark overflow lot, and all restricted lots. Restricted lots is the label used for all lots owned by the college or restricted in some way, like the Williams Inn portion of the Spring Street lot. The

of the lots within or around the college would be more highly utilized as compared to a more standard weekend.

Our next assessment, focused on weekday parking, was a limited scope of the high demand locations. We performed it on Wednesday, November 15th, in the afternoon. Within this assessment we looked at the downtown and surrounding area (Spring Street, Spring Street Lot, Latham Street, Old Town Garage Site) and we looked at the largest faculty parking areas (Parking Garage, Chapel Lot). We also checked Park Street since we suspected that many faculty use that parking during the day.

The data from these two assessments includes how many student cars, faculty cars, and other cars there are, as well as the number of empty spots. Data on the car type was gathered based on the sticker student and faculty cars must place on their rear windshield. In conjunction with the interviews, this data gives a sense of how people use the current parking available in Williamstown, areas where current parking could be used more efficiently or shared, and informs suggested changes to the bylaws. Unlike other small towns like Hanover, NH, Williamstown does not have a comprehensive parking map. The creation of this map and the gathering of information on lot square footage, number of spots, and utilization rates will help to inform future projects in the town.

While we have attempted to perform this audit as objectively and accurately as possible, it is necessary to note its shortcomings. First, these numbers are based on our counts and are bound to have a degree of error. We aimed to count all spots and cars in non-residential parking, but, especially in unpainted lots, there are likely to be potential spots that we missed. Thus, the

total number of spots is likely an underestimate of the true count. And second, both audits offer just a snapshot of parking utilization on a single day. Due to limitations of both time and resources, we were unable to perform a more comprehensive analysis of utilization in the town. Acknowledging these limitations, we still find our data to be extremely valuable, but please note that it does not provide a complete picture. With that said, below is an overview of our data.

Overview of Data:

Our full spreadsheet of data is available [here](#). Data for the purposes of this report has been rounded to the nearest percent.

Audit on Saturday, October 28th:

Category	Number	Percent of Total
Total parking spots	5,571	100%
Empty spots	3,491	63%
Full Spots	2,049	37%
On-street parking	146	3%
Total cars	2,049	100%
Student	482	24%
Faculty	239	12%
Other	1,328	65%

The vast majority of lots on campus are relatively small, but there are 12 lots with over 100 spots as shown in Figure 5.

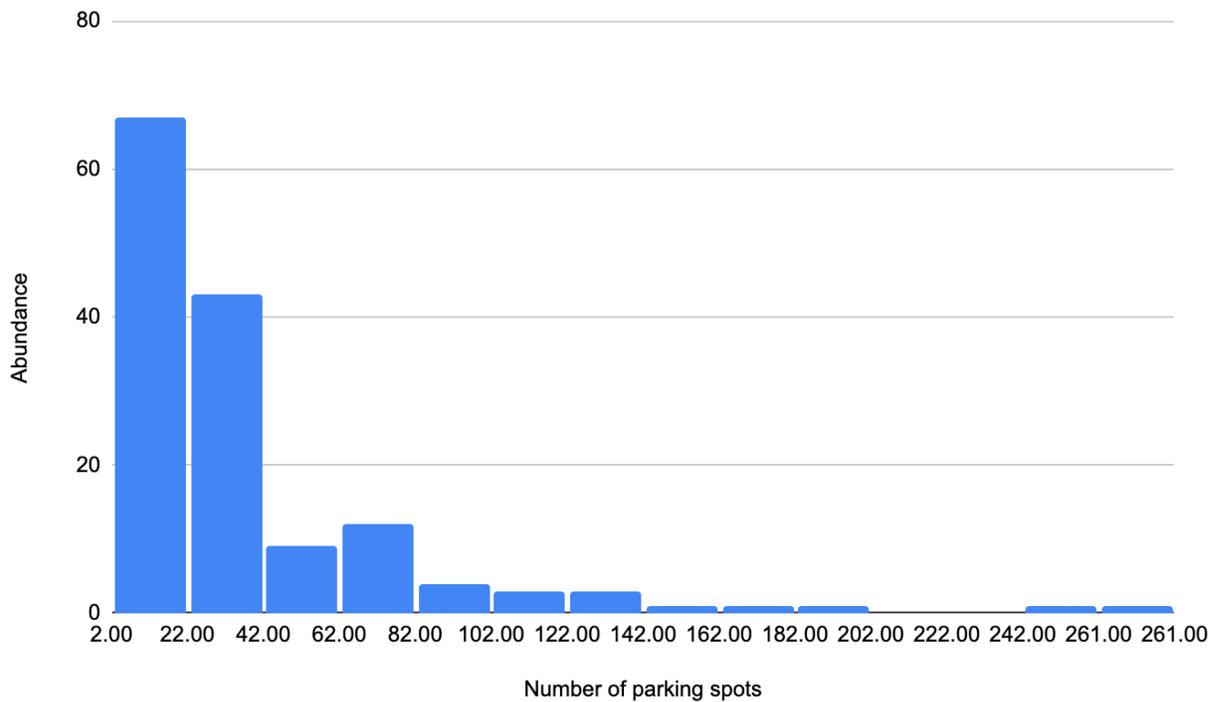


Figure 5. Histogram showing the distribution of number of parking spots per location in the Williamstown General Residence.

The majority of lots had extremely limited usage. The optimal utilization rate for parking is considered to be between 75-85% because there are enough available spots for people to easily be able to find parking, without having an overabundance (Corwin et al. 2019). Figure 6 demonstrates what percentage of lots fell into each utilization range, showing that 75.5% of lots are severely underutilized (less than 55% full). What constitutes each range is based on “Paved in North Adams: Parking Utilization and Development Solutions.” Further, 45.9% of lots were less than 25% full, and 21.9% of lots were less than 10% full, indicating that there are a substantial number of lots with virtually no usage during one of the busiest weekends for the college.

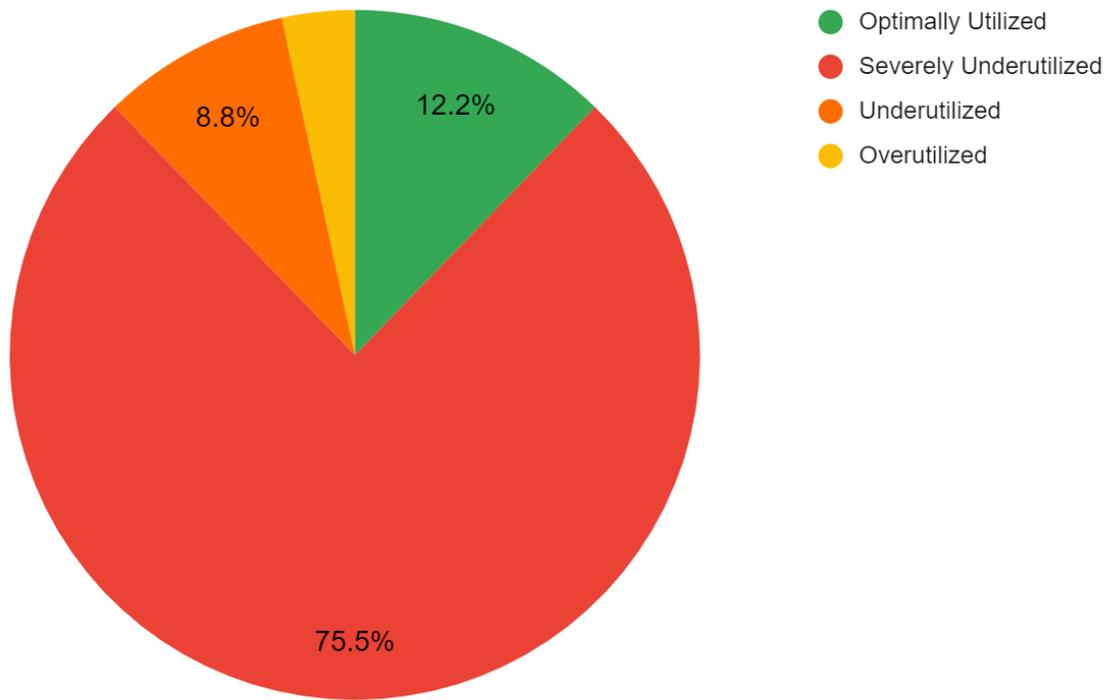


Figure 6. Parking utilization at the time of the Saturday parking audit. Severely Underutilized = less than 55% full, Underutilized = 55-70% full, Optimally utilized = 70-85% full, Overutilized = 85-100% full.

Parking near Spring Street tended to have much higher utilization rates, as we were performing the audit during Parents' Weekend and there were games going on in nearby Weston field. The data from these central lots is shown below.

Central Public Parking	Spots	Percent filled (Sat, Wed)	
Spring St	68	88	N/A
Spring St lot	139	83	95
Park St	45	93	73
Latham St	13	46	31*
Average	265	77.5	N/A

*Towne Field House demolition had begun, limiting one side on Latham St parking, and part of the Field House parking

It is also worth analyzing the largest lots, which we labeled as lots with more than 100 spots. We excluded the lot called Stetson Road Cole Field because it was being used as overflow parking for the games on Cole Field and does not normally hold over 100 cars. These lots tended to have higher utilization rates on average (50%) than Williamstown as a whole (37%) but are still severely underutilized on average. Across these 10 lots, there were a total of 1,693 spaces, representing 30% of total spaces. Figure 7 contains a graphical representation of this data, including who is using these spots. One notable feature of this data is that students tend to not park in their assigned spots. There are a total of 489 spots reserved for Williams College students. Each student is assigned a specific lot to park in. According to Mark Florzyc who manages student parking at CSS, every student lot, except for Thompson, is full. However, 42% of student cars were parked outside of a student lot, indicating that students are using capacity in public lots and unincorporated lots (like the Old Town Garage Site) instead of their assigned parking spots. This also helps to explain the low usage rates of student and faculty parking like the Greylock parking garage.

Parking facilities >100 spots	Spots	Percent filled (Sat, Wed)	
Thompson	244	47	N/A
Greylock Garage	232	34	42
Clark Lot	198	33	N/A
Colonial Plaza	164	17	N/A
Old Town Garage Site	152	75	87
Weston Lot	142	99	N/A
Fieldhouse	141	50	N/A
Spring St Lot	139	83	95
Chapel Lot	137	24	75
Brooks Lot	114	39	N/A
Average	169.3	50.1	N/A

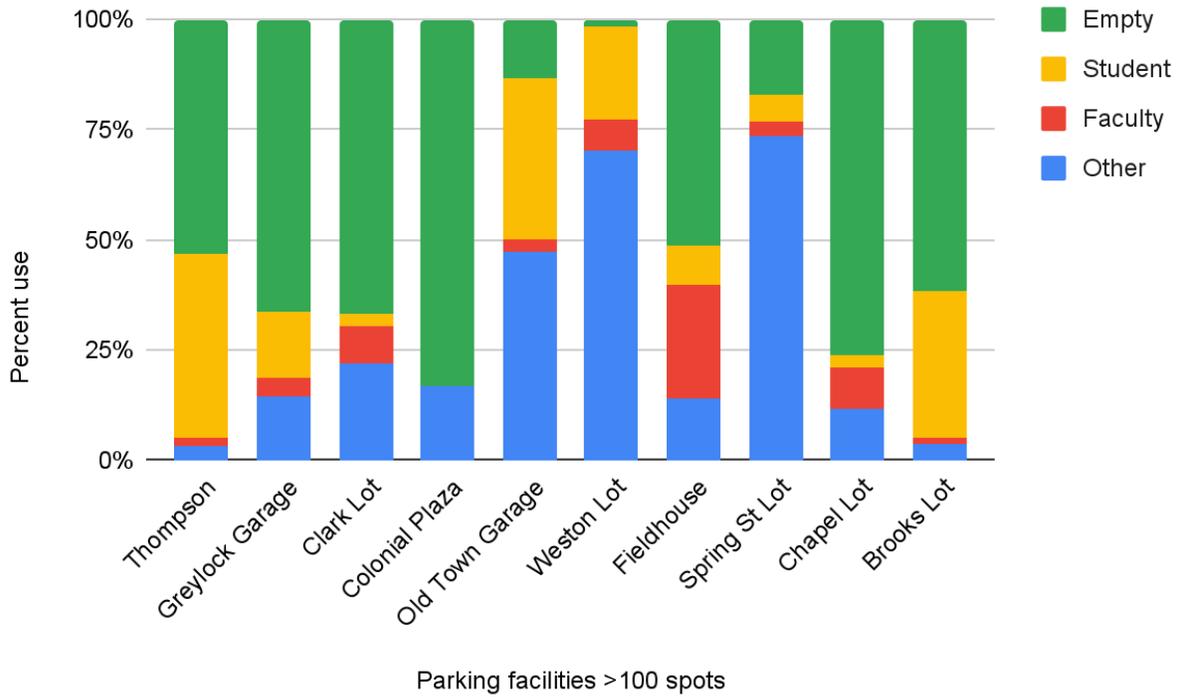


Figure 7. Parking lot utilization on Saturday, October 28th for parking facilities with over 100 spots in the Williamstown GR. *Old Town Garage Site data is from Wednesday, November 15th because we missed a section of the lot during the prior audit.

Student cars parked outside of student parking tended to be in the Old Town Garage Site (60), Weston Lot (30, so high because of a soccer game happening there at the time of the audit), Stetson Road (30), and the Fieldhouse lot (13). Faculty and students also tended to occupy substantial space in downtown parking, the details of which are shown below. While non-student/faculty still had most of these spots, the presence of them at all is still notable and can be graphically seen in Figure 8. Ensuring staff and faculty park in their assigned spots and walk to Spring Street or games would free up more capacity in these high-demand areas.

Location	Faculty		Students	
	October 28th	November 15th	October 28th	November 15th
Spring St	6	9	10	9
Spring St lot	5	48	8	12
Park St	9	22	2	3

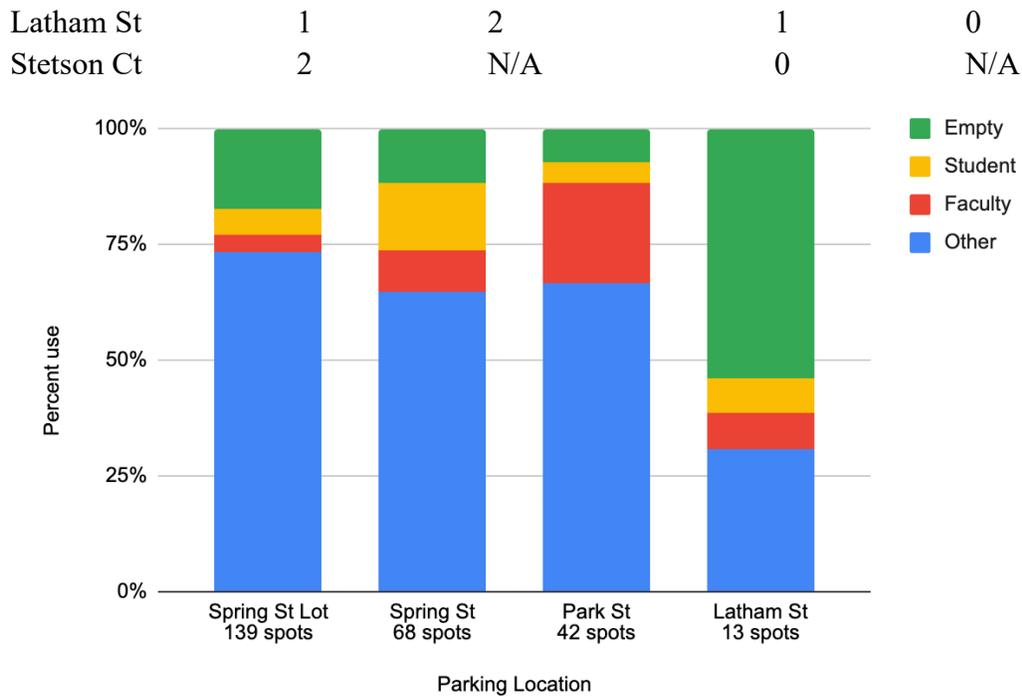


Figure 8. Percent use for the central, high demand locations on Saturday, October 28th.

Between the Saturday of Parents’ Weekend and the weekday audit, the makeup of parking changed substantially. This can be seen in Figure 9. While the decrease in “other” cars can likely be attributed to the parents leaving and it being a weekday, the consistently high presence of faculty and students in non-Williams parking lots like Spring Street and Latham Street indicates that those with assigned parking regularly park elsewhere, even if where they are headed is walkable from their assigned spot.

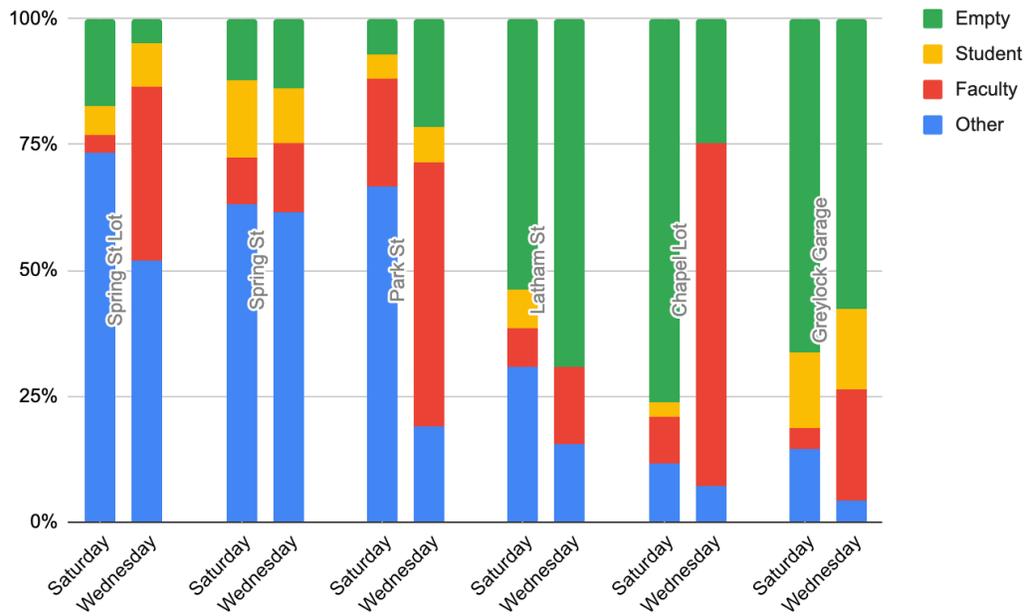


Figure 9. Saturday vs Wednesday usage.

This point is also driven home in Figure 10, which shows the substantial open spaces in student lots.

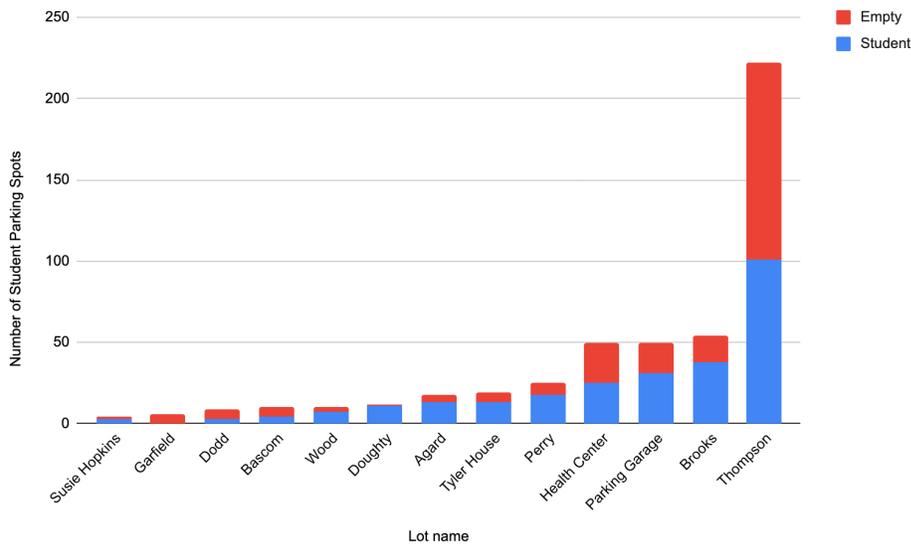


Figure 10. Williams College Student parking lots and usage.

The audit also revealed how Williamstown's bylaws impact businesses. Three of the most egregious examples of overbuilt parking are highlighted below, but they are far from the only ones.

Key Examples

Example #1: Dollar General

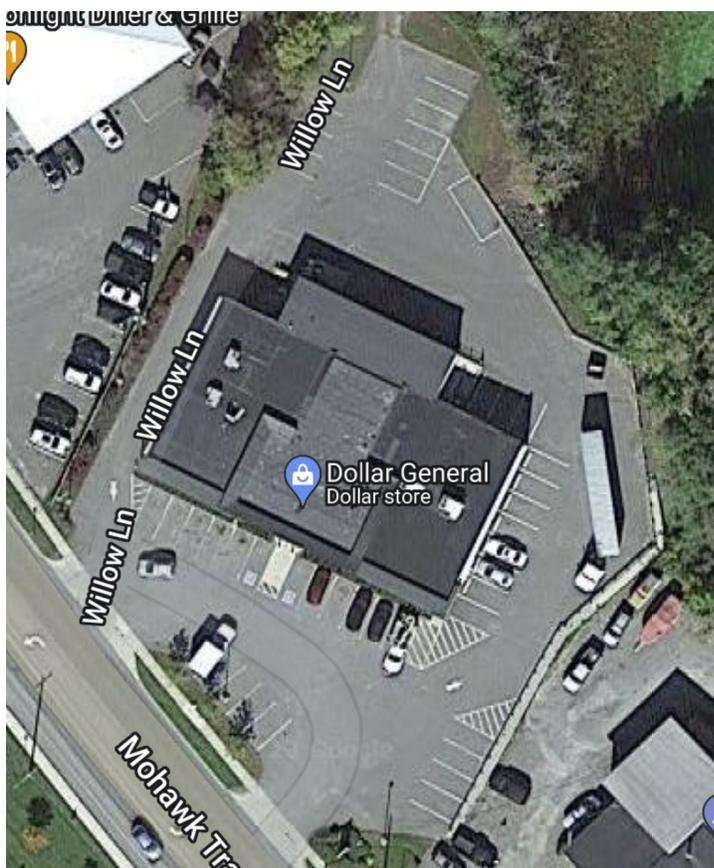


Figure 11. Google Maps photo of Dollar General in Williamstown and its associated parking.

Dollar General is an exceptional example of a business with parking far beyond what is necessary in order to accommodate the parking bylaws. The building itself is about 12,000 square feet, and the associated parking takes up about 30,000 square feet according to estimates made using Google Maps. According to the parking bylaws, if you assume about 2,500 of those

square feet are for loading and unloading, the building is required to have 38 spots plus one spot for every two employees. There are, in fact, 40 parking spots for the building, with only a 13% occupancy rate (5 cars) when we conducted our audit. There is 2.5 times as much space dedicated to parking as there is for the store itself in order to accommodate the parking requirements. Dollar General is designed to have quick turnaround times for shoppers and is unlikely to ever need this extensive parking capacity it has. From anecdotal evidence, the lot is nearly always empty.

Example #2: Atef Fine Jeweler



Figure 12. Google Maps photo of Atef Fine Jeweler and associated parking.

Atef Fine Jeweler is a clear example of this phenomenon of over-building parking. The building itself is about 5,500 square feet, and the associated parking takes up about 24,000 square feet, excluding the drive through ATM, according to estimates made using Google Maps. There are 59 parking spots for the building, with an 8% occupancy rate (5 cars) when we conducted our audit. There is no reason for a drive through ATM and a jewelry shop to have a capacity of 59 cars, particularly because the surrounding areas also have so much parking. From anecdotal evidence, the lot is nearly always empty as well.

Example #3: Colonial Plaza

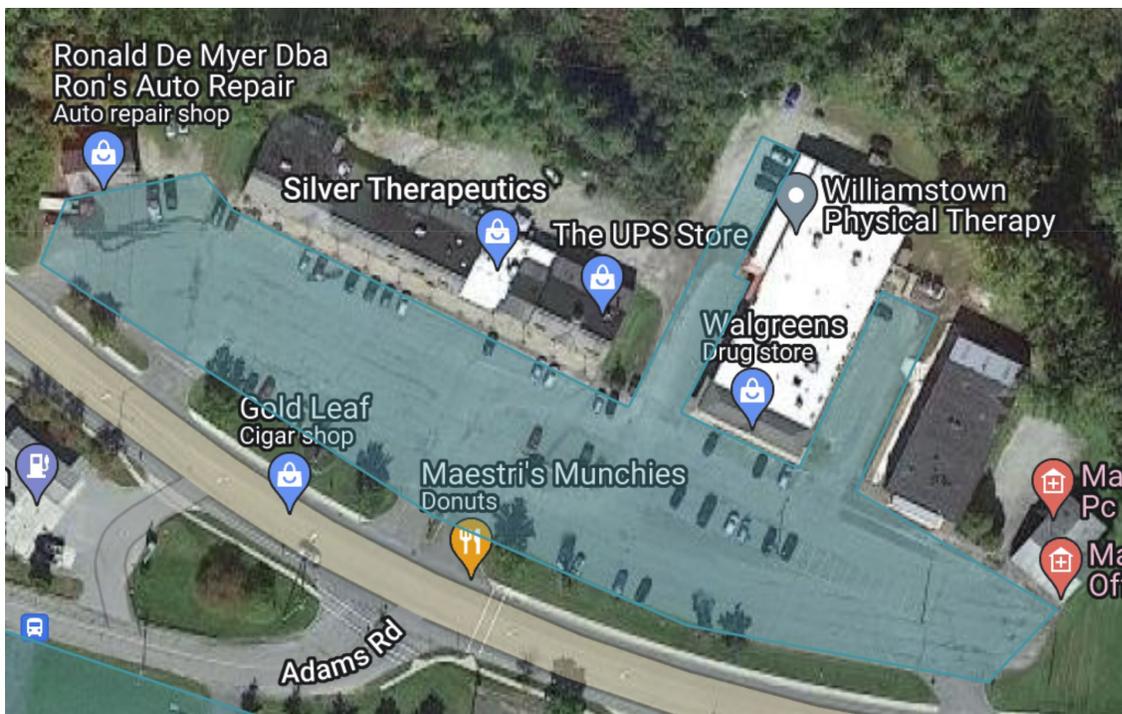


Figure 13. Google Maps Photo of the Colonial Plaza development.

Colonial Plaza is particularly flush with parking, boasting 164 spots and a 17% utilization rate. The scope of the parking lot is shown in Figure 13. Similar to the prior two examples, the amount of land dedicated to parking that simply is not used is far greater than the amount of land

dedicated to the businesses themselves. The parking lot is 85,377 square feet according to estimates from Google Maps, which is the equivalent of 1.48 football fields. All of the businesses in this plaza take up 46,217 square feet, meaning that the parking for the businesses takes up 1.84 times as much space as the businesses themselves. Once again, from anecdotal evidence, this lot is nearly always empty. These businesses are unlikely to all share peak hours, and could share parking in order to reduce asphalt.

Key Findings

There were two key takeaways from analyzing the results of our parking audit. The first is that Williamstown parking lots are severely underutilized on average. Large, central, public parking lots tend to have the highest utilization, but there is often plenty of parking in smaller lots nearby. Parking in general is very spread out, with most parking existing in the form of small lots. This could explain the feeling people have that Williamstown does not have enough parking. The second key takeaway is that students and faculty tend to park in public parking locations, despite the fact that they have assigned spaces that are within walking distance of these public lots. This contributes to the high demand for parking in the downtown area of Williamstown.

It is again worth noting that these findings are not unique to Williamstown. This form of parking management problem is found all over the United States. In Hanover, NH, DESMAN Design Management completed a detailed parking study during 2019 of the downtown and released its findings:

Despite the fact that DESMAN did not identify an overall parking shortage downtown, much of the Town's public parking supply was found to be overutilized; the much lower utilization of many of the private, off-street parking facilities brought down utilization in the study area as a whole... Unfortunately, that available capacity was generally reserved for specific users, especially at peak periods, hence the general perception of an overall parking shortage.

(DESMAN Design Management 2019)

Like us, DESMAN saw overutilization of the public parking supply downtown, but an overabundance of restricted parking that had a specified use. This suggests many small towns, such as Williamstown and Hanover, experience similar parking perceptions and management or planning issues.

Interviews

(See Appendix A for individual interview summaries)

We have conducted a series of interviews with various college students, faculty, and staff, as well as the planning board, the town's police, and the Clark Art Museum. We have also talked with a planner in a similar college town — Hanover, NH. Our goal with these interviews was to gain insight into parking habits and how other towns have managed their parking stock. Some of the key questions we sought to answer with these interviews are, anecdotally, who is using the on-street town parking on places like Park Street and Spring Street? Do Williams College faculty park exclusively in faculty and staff lots? Do students park exclusively in student lots? If not, where and when do they tend to park elsewhere? How often do faculty and students — those who have access to the most walkable parts of the town — walk or bike instead of drive? Does an overabundance of parking encourage unnecessary driving? Finally, we were interested in all interviewees' general perception of parking in Williamstown. Is there too much? Is there too little? As such, we selected people who could give us context and better understanding of the answers to these questions.

Our first interview with Henry Grabar helped to shape our understanding of parking demand and parking reform efforts across the country. He pointed us to several useful sources, including Strong Towns. While he was less of an expert on small town parking, he offered us the visualization of a spiky parking demand and a compelling explanation as to why it is generally not good to build for peaks. It creates chronically underutilized pavement — with all of its negative environmental, aesthetic, and economic side effects — most of the time for the singular benefit of having enough parking during rare peaks. Ultimately, more creative options like increasing overflow parking can allow for less pavement while still managing peak demand.

From our interviews with Williams College professors and faculty, we gathered that the ease of parking — and therefore the perception of parking supply — varies greatly across the college campus. While some find that they can always and easily find parking near their destination, staff and faculty who work in the non-central parts of campus like the Spencer Art Building have more difficulty. That being said, everyone tends to have a place to park, even if they have to park a bit further away. While some people bike or walk to campus — if they live close enough — for many, bringing the car to school is a necessity because there are errands that must be run after work.

In terms of student parking, Mark Floreczyk showed us that on paper, every lot except for Thompson by Poker Flats is filled up. However, in practice, a considerable number of students consistently park in the Old Town Garage Site by Water Street, even when they are registered to park elsewhere. Police Chief Ziembra sees this site — which is owned by the town but has an uncertain future — as a good way to increase supply in the high demand downtown, but its usage by a substantial number of students means it does little to actually do this. The police do not ticket at all in this lot. Arguably better than unpaid overflow parking, the lot has the potential to be a new development in central Williamstown, either for residences or for business, expanding Water Street commerce.

Ziembra also informed us that the police currently only enforce overnight parking, fire-code violations, and handicap violations. They have not enforced the 2-hour parking limit on Park Street, nor the 1-hour parking limit on Spring Street since 2020 when COVID disrupted standard practices. The day the Field House construction began, however, the police and Andrew

Groff's office began to receive complaints from merchants who say squatting cars are taking spots from possible patrons.

Scott Henderson, Jamie Art, and Doug Schlaefer all gave important context for the upcoming WCMA project, discussed at length in the Future Projects section. They are exploring the possibility of sharing the Clark's overflow lot off of Route 7. The Clark's Matt Noyes seemed generally open to the idea but worried that winter use of the lot would require it to be fully paved to allow for plowing. Scott also informed us that construction workers for the current Davis Center project are assigned to park at the cleared site where the new WCMA will be located or at a small strip of assigned construction parking in front of the Health Center. However, construction workers like to park in the Spring Street Lot, Bank Street, and in the smaller lot behind Spring Street Market. This fact, combined with the lack of time limit enforcement, contributes to a lack of supply in central areas.

Our interview with the Senior Planner of Hanover, Alex Taft, showed us that Williamstown is not alone in its parking issues, nor would it be the first to reflect on parking requirements and reform. The town planners are in the process of presenting a substantial amendment in parking bylaws to the planning board in hopes they will bring it to the 2024 town meeting to be approved. Being a small sprawling town comes with its own set of considerations for parking, but that does not mean progressive parking reform cannot happen.

Solutions: Details and Relevant Case Studies

1.1: Eliminate Parking Minimums

This would consist of replacing the existing parking bylaws that require a specific number of spots, and converting that number into a maximum. Instead of being required to build a given amount of parking, that number would just serve as a cap. This provides developers with flexibility to only build as much parking as they need, without the Planning Board worrying about developers who would build far over what the city currently requires. This would also allow current buildings to convert unused parking into whatever they would like.

Understanding what these bylaws do in reality requires investigating the specifics of parking development, for example, the bylaw that requires one parking space for each 250 square feet of gross floor area in retail stores and offices, plus one spot for every two employees. For reference, the size of a parking space, including maneuvering space, is 300 square feet according to these same bylaws. This means that for a one-story building, all floor area must be matched at a ratio of 1:1.2 with parking space. As an example, say a developer wanted to build a grocery store in Williamstown, like the Stop and Shop in North Adams. It is a fairly average sized grocery store, and includes a pharmacy. The location is roughly 60,000 square feet according to estimations made using Google Maps. This means that this one location would require 240 parking spots and would take up 72,000 square feet of asphalt, more than doubling the amount of impervious surfaces this development would require before even taking the spots needed for employees into account. It would be legally required that the physical footprint of the building be exceeded by the lot servicing the building, virtually prohibiting walkability and carrying substantial environmental consequences.

In addition, bylaws like this impose costs on new development, driving up real estate costs and sometimes preventing projects altogether. Developing parking lots is expensive, and can vary widely in price, between \$2.50 and \$7 per square foot for both materials and labor (Home Advisor 2022). For our hypothetical new Stop and Shop location, this lot would add between \$180,000 and \$504,000 to development costs, excluding the cost of acquiring the required real estate. From a conversation with Jamie Art, we learned that in Williamstown the cost per parking space can range between \$10k and \$15k, which would boost the cost of this hypothetical parking lot development to between \$2.4 and \$3.6 million.

Strictly regulating this parking prevents private businesses or developers from evaluating how much parking they actually need, leaving the overall parking market entirely unresponsive to overall supply. Building each individual development as if they exist in a vacuum without any surrounding parking results in collective oversupply, even if individually each is just built for its peak. This excess space could be parks, other businesses, affordable housing, or just about anything else the town would like to build.

There are dozens of cities and towns around the United States that have done this. Hartford, Connecticut made history in 2017 when it became the first U.S. city to eliminate parking minimum laws citywide. Changing the law, however, does not mean immediate transformation. Six years later, 22% of Hartford's downtown still comprises parking lots (Jones and Herriges 2023). Hudson, NY in 2019, Burlington, VT in 2023, and Dover, NH in 2018 have all eliminated minimums and kept their maximums (The Parking Reform Network, n.d.). Further, Oregon and California entirely prohibited parking requirements near high-frequency transit service (Henderson 2023) (Nugent 2022). However, similarly to Hartford, it is difficult to

determine if any meaningful changes have occurred as a result of these policy changes due to the slow-moving nature of town development.

However, Ventura, CA in 2010 does provide examples of what can change because of parking bylaw adjustments. Ventura was in a situation similar to Williamstown. Merchants downtown perceived a shortage because the on-street parking was always full. However, they had underused off-street garages, and several lots a short walk away from downtown. In response, Ventura limited mandatory minimums in its downtown and started charging for curb parking. They gained public support via discussions about how to spend the money that metered parking would bring in. As a result, buildings could be constructed with no on-site parking, and developers erected a Class A office building for the first time since the 1920s, development that would have been impossible under the prior parking bylaws (Barter 2021). Parking became perceived as more available because charging for curb parking discouraged employees or squatters from leaving their cars there all day.

1.2: Add Flexibility to Parking Bylaws

This would consist of simply changing the bylaws to include both a minimum and a maximum, providing developers with flexibility but not free reign. While this still limits the ability of developers to evaluate the parking needs of their clients, it preserves control of the town over parking supply. The exact impact of this option of course depends on the specific changes made to the bylaws. New bylaws could also include no parking requirements for downtown Williamstown like Water Street and Spring Street, while preserving them elsewhere, or include allowing shared parking if an applicant demonstrates that adjacent land users have different hours of operation.

Such changes would bring Williamstown in line with the many other towns in the United States. Schenectady, NY, for example, has parking maximums, does not have a minimum parking requirement for commercial properties in the downtown area, and allows shared parking if an applicant demonstrates that adjacent land uses have different hours of operation (The Parking Reform Network, n.d.).

2: Shared Parking

Implementing shared parking is a two-part process: encouraging institutions to establish shared parking relationships, and changing the bylaws to allow parking to be legally “double-counted” for new developments with different hours, the latter of which is of course connected to Solutions 1.1 and 1.2. Most new developments do not want to jump through hoops to avoid building their own exclusive parking, so making this process easy is crucial to its success. Some might argue that simply opening the door for shared parking will lead cost-minimizing business to exploit any opportunities to lower construction expenditures, but in reality businesses — anecdotally in Williamstown, and also evidenced by Donald Shoup’s and Henry Grabar’s research — tend to perceive even the possibility of a lack of parking as a threat to future profits. Further steps must be taken to assure business owners that shared parking will not turn away their patrons, and to encourage them to pursue this.

The first type of shared parking consists of individually worked out relationships establishing shared usage of specific lots. This type of relationship will require a longer-term analysis of parking demand since each manages complex daily parking demands.

Example 1: Saints Patrick and Raphael Parish and Williams College

The college’s Lower Chapel Lot, filled primarily during the week by faculty and visitors, sits next to the Parish’s lot which experiences peaks on weekends, especially on Sunday

mornings and holidays. This presents a prime example of mismatched parking demand peaks and therefore a prime opportunity for shared parking. Figure 13 shows these parking lots side by side.



Figure 13. Lower Chapel Lot and Parish Lot.

Not only does underutilized parking produce unnecessary environmental impact, these parking lots have the opportunity to be converted to more productive and publicly beneficial uses.

Example 2: Clark Art Institute and Williams College

The Clark owns an overflow lot off Route 7 (103 US-7) which sits empty from September to April, every year, until the museum staff begin to park there in the summer months

(Noyes, 2023). Figure 14 shows a satellite view of the empty overflow lot across the street from the Parking Garage.

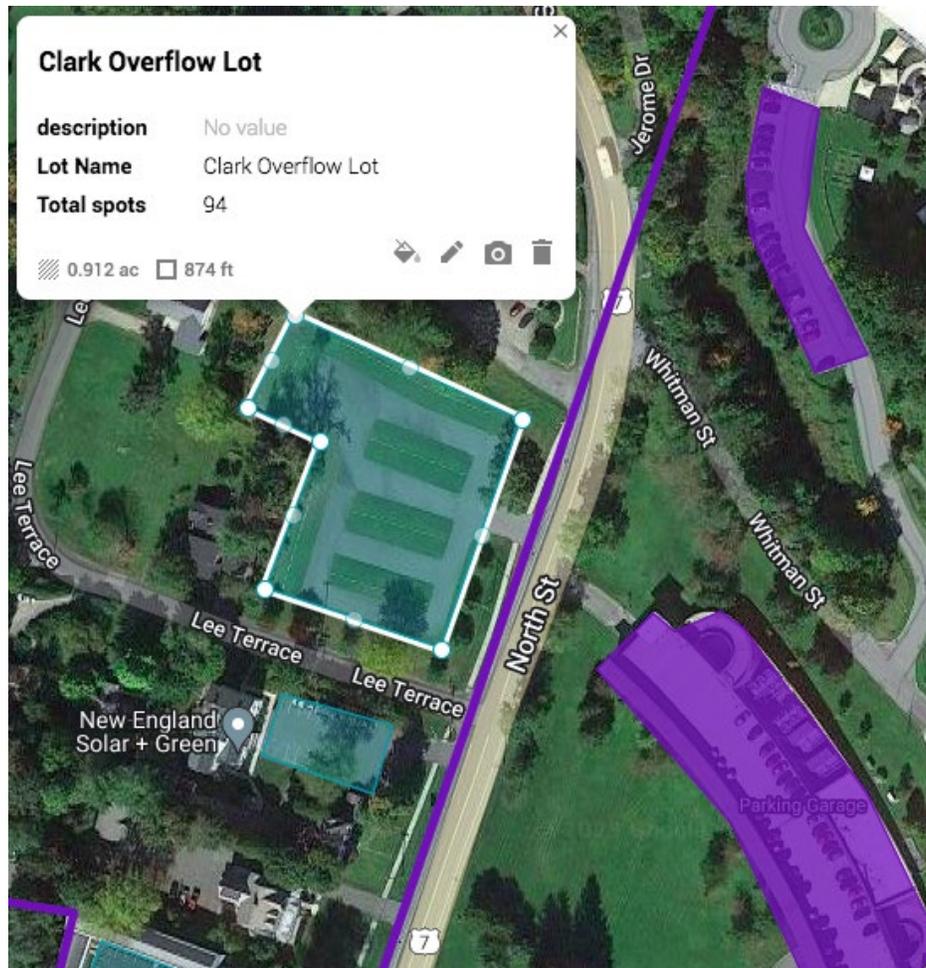


Figure 14. Google Maps photo of the Clark overflow lot and the Greylock Parking Garage.

The College owns the parking garage across the street. During the summer, though the Williamstown Theatre Festival uses some spots for its staff and visitors, no students are allowed to park there. Even during the school year, the second floor of the garage, containing about 75 spots, is chronically underutilized, as evidenced by our physical audit. An arrangement between the College and the Clark to share one of the parking lots could mean that another chronically underutilized lot is converted to a more productive and less environmentally damaging use. A

consistent theme is that underutilized parking carries a tremendous opportunity cost, in addition to the environmental, aesthetic, and economic costs imposed. For the Clark especially, underutilized parking presents the opportunity for additional exhibit space or community gathering areas.

The second shared parking type involves the implementation of multi-business sharing. This can reduce unused pavement on an even larger scale, following in the footsteps of several other towns in New England. Both Stoneham and Waltham, MA have changed their bylaws to not only allow but also encourage business plazas to organize peaks to optimize the amount of pavement (“Local Examples: Shared Parking – MAPC” 2010). These policies were not radical by any means, limiting joint usage of lots to 50% of an individual business’s parking. Nonetheless, legalizing sharing is an important first step.

Example 3: Colonial Shopping Center

Colonial Plaza off Route 2 in Williamstown is a prime example of where sharing could have been useful. While the lot already is technically shared between all the businesses there, mandatory minimums and disallowed double counting means that it has been built to accommodate the hypothetical peak of every business at the same time. While we would need a more comprehensive study of specific business inflows and outflows, Figure 15 provides an approximate time of day utilization study Colonial Plaza.

Daytime Peaks	Evening/Weekend Peaks
Ron’s Auto Repair (7:30 am - 5 pm) The Spoke (12 pm - 5 pm) Royal Cleaners (10 am - 5 pm) Walgreens (8 am - 9 pm) Mark Pullano - Dentist (7:30 am - 5 pm)	Desperados (4 pm - 9 pm) Korean Garden (11 am - 9 pm) Silver Therapeutics (10 am - 8 pm) Maestri’s Munchies (Weekends, ~24/7)

Figure 15. Business hours taken from Google Maps.

Restaurants will receive the bulk of their customers for dinner and other businesses will receive the bulk of their customers during the mornings or later afternoon post-work peaks. Furthermore, given that most stops at the shopping plaza are relatively short, turnover in the lot is constant. Anecdotally, this lot is never even close to capacity. Again, while further study is important to back up these estimations and to assure business owners a smaller shared lot would not be at risk of reaching capacity, our own audit supports the idea that the Colonial Plaza lot is dramatically underutilized. Introducing shared parking could potentially free up space for further development and cut down on unnecessary and environmentally harmful impervious pavement. Figure 16 — which shows the Colonial lot — provides further visual evidence for the unappealing aesthetic of underutilized pavement taking up more space than the actual businesses.

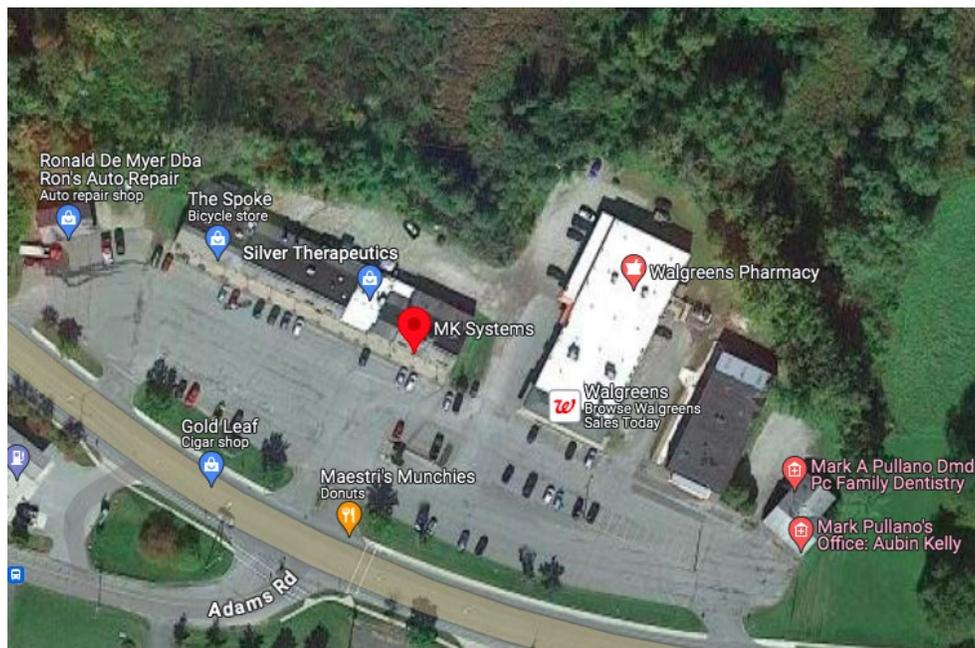


Figure 16. Google Maps photo of Colonial Shopping Center and associated parking

These three Williamstown examples point not only to retroactive changes which can be made but also point out things we might want to avoid in future development. Establishing these

relationships is a crucial step and can also help change the mindsets of merchants who think it is necessary to build enough parking to accommodate their own theoretical peak.

3: Paid Parking

To assess the costs and benefits of parking meters in Williamstown, we spoke with Ed Kinkade, Vice President of Sales in the Northeast for Flowbird (Ed Kinakde, personal communication). The Paris based company supplies parking meters and payment technology worldwide and across the US including Boston, Albany, and Pittsfield.

Kinkade stressed that the move from unpaid to paid parking is the most challenging step, and requires strong political support and buy-in from stakeholders. In the process of obtaining public support, it would be key to have an in-depth parking study with a parking consultant who can assess current demand and the economic impacts of installing meters, providing detail that this report cannot. While there tends to be resistance initially, Kinkade estimates that the disapproval usually fades away in 12-18 months when towns make the switch. Freehold, New Jersey made the switch from unpaid to paid parking last year with mixed response (Strupp 2022).

Implementing paid parking would bring economic tools to parking supply and demand in the town, rather than just the dimension of building more parking spaces. Based on our physical audit of parking behavior and interviews, students and faculty often park in public parking spots despite having reserved parking on Williams College campus. This demand increases parking utilization beyond optimum levels of 75%. Given students and faculty have assigned parking nearby, often less than half a mile away, implementing paid parking would incentivize parking in their assigned locations which are already paid for. This may free up spaces for those who do not have as many other parking options.

For those who do park in paid locations, revenue from parking meters could be used to supplement the maintenance and cost of parking spots in the town. This moves the burden away from Williamstown tax paying residents and onto the users. All parking comes with a cost — the question is just who should pay for it.

The latest development in paid parking is to use multi-space kiosks rather than single space meters. Many cities are moving towards these multi-space pay stations, such as in Vancouver (Chan 2021). These kiosks can have touch screens, multiple languages, and can accept coins, card, and mobile app payments. The kiosks are easier to manage and install, as well as more resilient to harsh weather. One kiosk can be placed for every 8-12 parking spots for on-street parking and placed at high traffic entry and exit points for parking lots. Enforcement can be done with a ticket in the windshield, but more conveniently by using the license plate number.

Based on Flowbird's parking kiosk cost estimates, the following are some basic calculations about the total cost and return on investment.

Item	Individual cost
Per kiosk (for projects involving 1-25 kiosks)	\$7,821
Pay-by-plate back-office fees	\$60 per kiosk, per month
Installation per kiosk	\$300 - \$750

Location	# Parking Spots	# Kiosks per Location
Spring St lot	140 spots	1-2
Spring St	64 on-street parking spots	5-8
Park St	42 on-street parking spots	3-6
Latham St	13 on-street parking spots	1-2
Total	259 spaces	10-18

Scenario	Total Kiosk Cost	Total Install Cost	Total Cost
10 kiosks	\$78,210	\$3,000 - \$7,500	\$81,210 to \$85,710
18 kiosks	\$140,778	\$5,400 - \$13,500	\$146,178 to \$154,278

If implemented in these four locations, the project would cost between \$81,210 to \$154,278 for the kiosks and installation. Pay-by-plate back-office fees would cost an additional \$600 to \$1,080 per month including credit card fees. At the highest cost scenario of 18 kiosks, a reasonable price of \$1 per hour, used between 9am-5pm, and a usage of 75%, which is less than current use today (Figure 8), paid parking would generate \$1,554 per day and pay off in less than 4 months. It would also encourage those who already have assigned parking elsewhere on campus to park in those assigned spots, or at the very least park in less central locations.

Paid parking at these locations, paired with better wayfinding and signage towards unpaid spots, would even out demand in the most concentrated areas. This would increase perceived supply, promote turnover, and generate revenue to pay for parking spot maintenance or other transportation projects.

4: Parking Permits for Additional On-Street Parking

Williamstown has little on-street parking compared to off-street lots. One solution to increase parking supply is to turn already existing pavement into parking. This could be done by creating a system where residents of the neighborhood could receive a permit that allows them to park on the street overnight. Those who do not have an address within the neighborhood, such as Williams College students and visitors, would be restricted to 2-hour parking limits.

One location where the permit system makes sense is Southworth St. It is a very wide street even though it is a residential neighborhood. Based on studies of street use, narrow streets are safer than wide streets. (Johns Hopkins Bloomberg School of Public Health 2023) Narrower streets can also make more efficient use of space by including wider sidewalks, bike lanes, and parking where there would otherwise be driving cars. Narrowing the street also slows down

traffic and gives a more neighborhood-like feel rather than vast expanses of unused pavement (Johns Hopkins Bloomberg School of Public Health 2023). There are, however, some concerns about reduced visibility which can decrease safety.

Implementing the permit system could occur on Southworth St, Cole Ave, and the perpendicular streets such as Arnold St, which have demand given 20 cars were parked on that street at the time of the audit. Allowing short term parking on the street would also open parking for visitors who want unpaid parking and are willing to walk a short distance.

5: Improve Parking Signage and Enforcement, Including a Comprehensive Map

Particularly on Spring Street, we observed a lack of clarity regarding parking signage. This option would consist of improving the clarity of parking signage to make it easier to follow the laws that currently exist, including the one-hour limit on Spring Street. This should also include ticketing those who break these rules, which the police do not currently do consistently. One location where better signage would be critical is on Southworth St. While one side of Southworth St accommodates parking, there is no clear sign regulating parking, shown below in Figure 17. In the interview with art professor Kerry Downey, they avoided parking on the street because of the unclear signage and rules (Kerry Downey, Personal communication).



Figure 18. Parking signage on Southworth St. The other side does not have a sign about parking limits or overnight parking.

Further, a more comprehensive map could simply include publicizing a version of the map we've made to direct people where to park. A comprehensive map would compile the times at which parking is available in an easy to read, concise document, like the version from downtown Davidson, shown in Figure 17 below ("Map of Parking in Davidson," n.d.). This alone could alleviate some of the feeling that there is not enough parking in downtown Williamstown and could aid the police and security in directing traffic to parking. Worcester, MA also has a comprehensive map showing where parking is available in a more interactive alternative to Davidson's map, consisting of directions and labels on Google Maps, the link to which is available [here](#) (The City of Worcester 2023).



Figure 17. Parking Map of Downtown Davidson.

Evaluation Matrix

Table 16. Evaluation Matrix of proposed measures to reform parking in Williamstown. Scale: 1 = bad/negative impact, 3 = neutral/no impact, 5 = good/positive impact.

Proposed Solutions	Environment	Society	Economy	Equity	Public Health	Safety	Cost	Total
Eliminate parking bylaws	4.5	5	5	2	3	5	5	29.5

Add flexibility to parking bylaws	3.5	4	4	3	4	3	5	26.5
Shared parking	4	3	4	3	3	4	5	26
Paid Parking in high demand locations	4	4	4	2	2	4	3	23
Parking permits for additional on-street parking	3.5	3	3	4	3.5	2	5	24
Improve parking signage and Enforcement	3	3	3.5	5	4	3.5	4	26
No change	2	3	2	5	4	1	5	22

Evaluation Criteria

We evaluated each proposed parking reform on the basis of seven criteria we found to be relevant. Evaluations are inherently subjective, but we hope that these guidelines show our thought process.

- I. Environmental: This category evaluates the environmental impact of the proposed reform in terms of its positive or negative effect on the environment, directly or indirectly. Positive changes include reducing impervious surfaces, reducing reliance on cars, encouraging other forms of transportation, and reducing search time for a parking spot.
- II. Social and Equity Impacts: This category evaluates the social and equity impact of the proposed reform, either directly or indirectly. Positive changes include reducing housing costs, making development cheaper, and no longer subsidizing free parking.
- III. Economic Impact: This category evaluates the economic impact for the town in the long run. Positive changes include increased revenue for the town government and businesses.
- IV. Feasibility: This category evaluates the ability to implement the reform. High feasibility includes aspects like being easy to implement, requiring little change or effort, or currently having the tools to do so.

- V. Public Support: This category evaluates the estimated public opinion on the change. Positive public support means it would likely pass in a town election.
- VI. Scale of Impact: This category evaluates how large of an impact the reform has. High scale of impact means it applies to the entire town or affects people immensely.
- VII. Cost: This category evaluates how much the reform costs to implement. A high evaluation for cost means that it is cheap and requires little to no funds.

1.1 Eliminate Parking Bylaws

- I. Environmental: 4.5 - Allowing businesses to create as little parking as they deem necessary would permit a general reduction in the overall amount of asphalt in Williamstown, and allow places that don't have enough parking to build more.
- II. Social and Equity Impacts: 5 - Low income families are less likely to own a car, and more likely to use public transportation. Parking minimums make everything else more expensive, and thus removing them is a progressive measure.
- III. Economic Impact: 5 - Allowing new businesses to only build as much parking as they need and convert existing parking into whatever they would like would attract new business and development to the town and permit existing businesses to do more with the space they have.
- IV. Feasibility: 2 - Those who vote in town hall meetings are generally wealthier and older, and enjoy the benefits of a parking subsidy. Further, Williamstown is very car dependent and people are defensive of their parking. A supermajority of 2/3 is necessary for any bylaw changes, decreasing the likelihood of this passing.
- V. Public Support: 3 - Among the general public, this is more likely to have broad support, but is still not an issue people care a lot about, so may not pass.
- VI. Scale of Impact: 5 - The impact of removing such parking requirements would be substantial, and would be the biggest change to the parking bylaws since they were created.
- VII. Cost: 5 - No cost to implement.

1.2 Add Flexibility to Parking Bylaws

- I. Environmental: 3.5 - Allowing businesses more flexibility will reduce the overall amount of parking in places that have too much parking and increase the amount of parking in places that have too little, but wouldn't feature the same breadth of environmental positivity that would be possible with no parking minimums.
- II. Social and Equity Impacts: 4 - Low income families are less likely to own a car, and more likely to use public transportation. Parking minimums make everything else more

- expensive, and thus removing them is a progressive measure. However, this wouldn't be to the same degree of progressivity that is possible with no parking minimums.
- III. Economic Impact: 4 - Allowing new businesses to only build as much parking as they need and convert existing parking into whatever they would like would attract new business and development to the town while permitting existing businesses to do what they'd like with the space they currently have. However, not to the same degree as total parking minimum elimination.
 - IV. Feasibility: 3 - This is slightly more feasible than a total parking regulation elimination, though specific likelihood of course depends on what the flexibility actually looks like and how it is pitched to the community. A supermajority of 2/3 is necessary for any bylaw changes, decreasing the likelihood of this passing.
 - V. Public Support: 4 - This is something most people do not often think about, but people are generally receptive to updating outdated laws and with explanation, may understand the flaws in the current parking code.
 - VI. Scale of Impact: 3 - The impact of modifying the bylaws would be substantial given it impacts the whole town, depending on the degree of flexibility permitted.
 - VII. Cost: 5 - No cost to implement.

2. Shared Parking

- I. Environmental: 4 - Shared parking would cut down on the amount of underutilized pavement. Less pavement means less potential for runoff and asphalt leachate polluting water sources. There are no environmental costs associated with this change.
- II. Social and Equity Impacts: 3 - We do not see any positive or negative social impacts.
- III. Economic Impact: 4 - Sharing parking between owners reduces maintenance costs for lots which are largely unused. The public would benefit if underutilized space is opened for new development, such as turning empty parking lots into community spaces, business developments, or multi-family housing units.
- IV. Feasibility: 3 - In general, to allow shared parking would require a bylaw change which, as mentioned above, can be difficult. For an agreement between two institutions or businesses, if there is willingness from both parties. It is very easy to implement since it is purely an agreement to share one overflow lot instead of each own one separately. For multi-business sharing, it may require some work to further assess time of day/week utilization trends and find the optimally minimized amount of pavement.
- V. Public Support: 3 - This will likely be unpopular at first as businesses will hope to protect their parking, but it has the potential to be very popular in its ability to cut development and real estate costs.

- VI. Scale of Impact: 4 - There is potential for this solution to reach both currently underutilized parking and systematically reduce future overproduction of parking spots, as well as encourage institutions to view parking more as a communal resource.
- VII. Cost: 5 - No cost to implement.

3. Paid Parking

- I. Environmental: 4 - Implementing paid parking would spread out demand to unpaid locations, thus increasing the perceived supply and reducing the need to construct more parking in the first place. People that could walk to Spring St would be encouraged not to drive since they would have to pay for parking there.
- II. Social and Equity Impacts: 4 - Paid parking puts the cost on the parking user, rather than taxing all residents that would otherwise be subsidizing other's parking.
- III. Economic Impact: 4 - After an initial investment, paid parking would generate revenue within a few months that could go towards parking spot maintenance and improving transportation options such as the shuttle.
- IV. Feasibility: 2 - The initial cost is substantial, and educating the public through outreach would be necessary to get this passed.
- V. Public Support: 2 - People would be unhappy about having to pay, since they are used to free parking everywhere in town. Initial resistance is anticipated, but with supporting evidence, it is possible to generate support.
- VI. Scale of Impact: 4 - It would be a very visible change and appear to be a big negative impact for people until parking behavior changes. However, if the money is used for something good, people may be on board. It would also impact how many people park on Spring St in the first place, opening up more spaces.
- VII. Cost: 3 - Initial cost of installation and the machines, as well as maintenance. Then it would generate revenue.

4. Parking Permits for Additional On-Street Parking

- I. Environmental: 3.5 - In coordination with changes to parking regulation, increasing parking supply through permitted use has the potential to help reduce demand for development of big new lots. This means less pavement.
- II. Social and Equity Impacts: 3 - Would be mostly neutral, if not positive since it would reduce the need for parking lot construction and in turn lower housing costs.
- III. Economic Impact: 3 - Depending on implementation method, it would likely not cost anything. The police who enforce parking may experience an increase in work.
- IV. Feasibility: 4 - Relatively easy to implement, but would require the creation of a permit program and an announcement to the town.

- V. Public Support: 3.5 - People would likely support the possibility of having the opportunity to park on the street without the fear of students overrunning parking-legal streets. It gives more freedom to residents, which they may enjoy.
- VI. Scale of Impact: 2 - Only some streets in Williamstown would have on-street overnight permit parking where it makes sense given road sizes.
- VII. Cost: 5 - No significant cost to implement.

5. Improve Parking Signage and Enforcement, including a Comprehensive Parking Map

- I. Environmental: 3 - Minimal environmental impact. While it could require the usage of some resources to implement, these are unlikely to be substantial.
- II. Social and Equity Impacts: 3 - No clear social or equity based impacts from such a change.
- III. Economic Impact: 3.5 - This could slightly boost economic growth in the community by increasing compliance and turnover on Spring Street and making it easier to find parking.
- IV. Feasibility: 5 - This is very feasible, and wouldn't require any public approval.
- V. Public Support: 4 - The public would likely respond positively to clearer signs and instructions on how to find parking near Spring Street and around town. It is likely to be fairly neutral on the enforcement of existing parking codes.
- VI. Scale of Impact: 3.5 - The impact is limited to downtown Williamstown.
- VII. Cost: 4 - This is unlikely to bear a substantial cost, though increased enforcement and the signage could cost some money.

Future Projects: WCMA Case Study

We have provided an abundance of information and five general recommendations that aim to solve Williamstown's parking management problem while also cutting down on impervious surfaces. However, it is not necessarily clear how to directly apply this information to standard practices at the planning board, or, in particular, the development plan review (DPR) process. One of the next projects to come before the planning board will be Williams College's new WCMA construction to be located on the Main Street roundabout, by the Town Hall. Art museums do not have a specification in the bylaws and therefore, like most other college developments, are an unlisted use. The goal of this section is to apply some of our research and offer a strategy for the Planning Board as it goes through the DPR process.

The current WCMA site has nine parking spaces along the roundabout off Route 2. Informed by a Fuss and O'Neill study commissioned in November by the office of Planning, Design, and Construction, the new site is currently situated to have 70 on-site spots, 7 of which are accessible. The projected 85th percentile estimate for a typical weekday demand during peak period (10 am - 2 pm), which looked at similar museums for reference, is 99 parking spaces, including employees. They expect around 36 employees, not all simultaneously at the museum and not necessarily all of them requiring parking. They are not building their lots to accommodate the expected weekday peak, and in fact expect a demand exceeding on-site supply by 29 to 36 spots. To accommodate this demand, the study also looked at utilization rates of the '62 Center Parking Garage to investigate the possibility of using this lot as overflow for the museum. They performed a weeklong study and found that the garage was chronically underutilized, reaching a peak of around 50% capacity, or ~110 cars, during some weekday afternoons. They call 90% an optimal utilization rate. In addition to college-owned overflow,

that need to be built. Fuss and O'Neill's study, along with our audit, show that the garage is chronically underutilized and could handle a daily increase of 30 or so cars, which would push the peak number of cars to around 145, or 64% of the garage's capacity. There could of course be exceptions made for accessibility needs among the staff. Furthermore, infrastructure to improve walkability — like a crosswalk with flashing lights spanning Route 7 and other sidewalk improvements — would have to be strongly considered. Finally, there is room to explore creative solutions which might encourage using underutilized lots around the college and walking to the WCMA site. In coordination with improvements to walking infrastructure, Jamie Art, during our interview, had the idea for the museum to set up art installations all along different walking paths. For instance, if people could park on Stetson Court, there could be installations along the sidewalks on either side of Route 2. For parking in the '62 Center Garage, the installation could be set up on the sidewalk stretching past the motel and Town Hall. There is a lot of room for further creative solutions to encourage walking and ultimately cut down on the number of on-site spots which are supposed to be necessary to manage museum demand.

We encourage the Planning Board to ask the development team if they have thought about these options and if they have factored them into their estimates. Cutting down on the possibility of under-used parking — while still ensuring that there will be enough parking in the area to manage weekly demand — will help keep construction costs lower and will provide the museum with more space to use at their discretion. There are opportunities for community spaces and outdoor art installations which will attract visitors much more than empty parking spots.

One final question to ask the WCMA team is where they expect contractor construction workers to park. Currently, as Scott mentioned, workers on the Davis Center project are assigned to park at the roundabout near Town Hall, but have been parking around Spring Street and likely

contribute to the perception of a parking shortage. A plan on this front is necessary to ensure there is space for contractors while still discouraging over-building of parking for the sole purpose of housing dozens of contractors' vehicles.

Conclusion

Williamstown is suffering from a dramatic parking oversupply in some areas, particularly more rural parts of the General Residence Zone like Colonial Plaza, and a simultaneous parking undersupply in others, particularly on Spring Street. In other words, Williamstown is suffering from a parking management problem. This is the result of outdated parking bylaws that have required parking for all developments, blind to the actual demand for parking in a given area. This limits economic growth by increasing the price of development, harms the environment by needlessly increasing impervious surfaces and emitting CO₂ from the laying of asphalt, and harms the small-town aesthetic of Williamstown by forcing businesses further away from one another with parking, preventing walkability and perpetuating car-dependence.

Despite the negative impacts of Williamstown's current bylaws, we believe that they can be ameliorated. Parking bylaws can be altered to allow developers to share parking, use existing oversupplied parking, or even encourage alternative means of transportation. Large organizations that tend to dominate Williamstown's development, like Williams College and the Clark, can be appealed to directly to share parking they already have and reduce the overall amount of pavement in town. Metered parking on Spring Street and Spring Street lot would alleviate the parking scarcity perception, encouraging walking, biking, or simply parking slightly further away where there is parking in abundance. Parking permits for additional on-street parking would reduce the need for garages and better utilize the space we already have without opening up those communities to student parkers. Encouraging more environmentally conscious parking lots through bylaw restrictions would aid the environment and reduce harmful runoff into the river. Finally, improved signage, enforcement, and a comprehensive parking map would boost compliance and facilitate people finding parking more easily. Economic development and

environmental consciousness are too often at odds with one another, but this report highlights a rare opportunity where they are entirely aligned — eliminating parking centric requirements.

This report is by no means exhaustive but will hopefully provide insight into parking in Williamstown and guide us towards a better future. Future investigations should do more comprehensive studies of parking usage at various times of day and throughout the year. Thank you for reading and considering our solutions!

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Appendix - Interviews

Henry Grabar, Author of *Paved Paradise* – October 18th

We asked Grabar for advice on parking reform for a small town with minimal public transportation and a pretty strong driving culture. While he has had less experience with small towns, he advocated strongly for the solution of shared parking, noting that you “don’t build the church for Easter Sunday.” Parking demand is spiky, particularly in Williamstown, and we should not approach each new construction project with the requirement to handle the peaks of those spikes. Different institutions often have different spikes, so there is room to share the load. Grabar also recommended performing a time-span study on Spring Street. There is a one-hour parking limit, but it may not be enforced. So how many people park there all day? This type of data can be critical for changing merchant’s demand for on-street parking directly in front of their business. If that spot is taken all day, what’s the point? Finally, Grabar pointed us to several resources, including Strong Towns and the Shoupista’s Facebook group for avid followers of Donald Shoup, the author of *The High Cost of Free Parking*.

Sara LaLumia, Professor at Williams College and GR resident – October 24th

To understand how Williamstown General Residents who work in town use parking, we spoke with Professor of Economics Sara LaLumia. When LaLumia came to Williams in the fall of 2007, she bought her first car and lived in college provided housing on Southworth St which included parking on site. When she lived there, she always walked to work and never thought to drive given the short commute. Later on, LaLumia wanted to buy her own house and during the search she said "it was so so important to me to buy a house within walking distance" since she

was used to the luxury of having a short walk to work every day. LaLumia moved into her current house on Bulkley within the GR district which is less than a mile and a 17 minute walk from her office. However, LaLumia now drives to work. Upon reflection she said, "when I bought the house, I never would have predicted that I would drive to work." Even a slight increase in commute time from 6 to 17 minutes can cause a change in behavior from walking to driving in Williamstown. Some of her neighbors walk and bike to work every day, but the convenience, time, and energy saved caused her to drive.

While at work, LaLumia parks in nearby Faculty and Staff lots such as behind Chapin Hall and the chapel lot by Sawyer Library. When parking, she is always able to find a parking spot with open space on each side, never having to squeeze in between two cars, showing the extent of parking available in Williamstown.

The only time LaLumia expressed any difficulty in parking was when she went to the Clark for the Munch exhibit one weekend. The Clark's main parking lot was full, so she ended up not going that day and instead went another day. This shows the spikey demand of parking in Williamstown, where occasionally there is much higher demand than there is most of the time.

Speaking of adding parking meters to Spring St or increasing on-street parking, LaLumia expected that "the actual degree of hardship would be low, even if people complained about it a lot." Overall, she said, "It's a nice thing about living in Williamstown, that parking is so very easy...distances could be increased a little bit and it wouldn't really lower quality of life very much at all because we already have it so good."

Chan Lee, student at Williams College – October 25th

To get a sense of how students use parking around Williamstown, we spoke to Chan Lee, a senior at Williams College who recently got a car in mid-June. Since having the car, he drives "whenever [he] can," including around campus and to businesses in the area such as Dunkin and the grocery store.

It only takes him 5-10 minutes to walk to class from his dorm, but sometimes he will drive to cut the time down to 3 minutes. When he drives, he usually parks in the Spring St parking lot and is always able to find a spot. Spring St, he says, is a busier place to park, especially on weekdays, even though he estimated that he could find a spot there 75% of the time. When he goes to Paresky, 80% of the time there's open spaces on Park St. Even at busy times, this confidence in being able to find a spot most of the time shows the abundance of parking all around Williamstown.

When asked his thoughts about changing on-street parking rules, he said he would like to see more on-street parking as long as it did not impede cars driving down the roads in narrow sections. If parking meters were put in place, he said having to pay the meter would limit how much he parks there for short term trips, but may decide to pay for longer stays on Spring St.

Allowing overnight parking on the street or in the Spring St lot he says would not affect him since he'd prefer to park overnight in his assigned parking lot by his dorm. This suggests that

the demand for overnight parking would be low for those who already have parking close to their residence.

Kerry Downey, Professor at Williams College from Kingston, NY – October 30th

We interviewed Art Professor Kerry Downey to better understand parking from an out-of-town perspective. Downey is on their third semester of teaching art at Williams College and drives in each week from their home in Kingstown, NY about a two-hour drive away.

Since Downey works in the Spencer Art Building, they would ideally park in the Spencer Art Faculty lot next to the building, but 90% of the time it is full of other faculty such as dining hall workers in Driscoll. Instead, they park across Water Street in the faculty parking lot by the faculty art studio and the Fire Department. At first it was difficult to find, they said, and had to have someone from the art department walk them over to see where it was. Sometimes they park on Southworth St, but since it was not specifically faculty parking and it's unclear about who's allowed to park there, they normally decide against it.

Downey has parked on Spring St and in the Spring St Lot on occasion when getting lunch and is always able to find a spot there with no trouble. Even in the winter when it is cold, however, they normally park by Spencer Art and walk over to Spring St rather than drive. When asked if they go to other places around Williamstown such as the shopping area by Walgreens, Downey never does which suggests that those shops cater to locals rather than anyone from out-of-town.

When asked about changes to parking in Williamstown, they said, "Anything you all can do to increase on-street parking is good." Allowing on-street parking would open up more options and space on existing pavement.

Darel Paul, Professor at Williams College and E-Bike Commuter - November 2nd

To understand what commuting to Williams via E-Bike looks like, we spoke to Darel Paul. In 2020, following his third child going to college with a car and car prices skyrocketing, he purchased an E-bike for around \$950 in order to commute to school. He lives on Pine Cobble, with a 1.5-mile commute. While traditional biking appealed to him, there is a lot of elevation in Williamstown and he doesn't want to get sweaty on the commute. It takes too long to walk, while biking only takes six minutes. This is only viable 7-8 months of the year — when it snows the roads are too hostile to bike on. When he does drive, he usually parks in the lot in lower Sawyer, and while he never struggles to find parking overall, sometimes he does have to park further away. He notes that quite a few professors do walk, like Jim Mahon.

He notes that a car-dependent culture means most people he talks to never really consider getting to campus in any other way. A lack of biking infrastructure also makes biking more stressful. No separation from drivers means that small shoulders are particularly stressful. While the route to North Adams has improved a lot for bikers, it still needs a lot of work.

Further, he likes the idea of a walkable downtown on Spring Street and enjoyed the post-covid outdoor dining culture.

Nancy Macauley, Williams College Security Officer - November 3rd

Nancy grew up in Williamstown, but now lives in Pittsfield due to high housing costs and lack of diversity in Williamstown. She has worked for the college for 11 years as a Campus Security Officer. She exclusively commutes via driving and parks in the upper chapel lot, which takes her about 30 minutes to do. While she likes to drive, bad traffic during the school year because of Mt. Greylock High School makes it less pleasant. Biking just isn't feasible, and while she would consider a bus or train, the current bus just doesn't have expansive enough hours and doesn't run enough. She often feels like there isn't enough parking for students or visitors, and is often asked by visitors for parking, particularly on move-in day and graduation. She thinks that a trolley service from parking lots to campus and throughout different scenic parts of the college would be a good idea. She also thinks that the Old Town Garage Site should be for people who are visiting the college and notes how people park in faculty lots when other lots are full. She thinks there is an excess of parking outside of Spring Street and sees the Colonial Village/Walgreens parking lot is empty all the time. She gets frustrated when people park in faculty lots because other lots are full. She thinks sharing parking lots between the Clark, the college, and the town is a great idea. Williams College and the board need to work together to plan for the future.

Michael Ziemba, Williamstown Chief of Police - November 9th

Ziemba helped to improve our understanding of current parking enforcement and the police's perception of parking supply. The police currently only enforce overnight parking (between the hours of 1 am and 5 am), fire-code violations, and handicap violations. Since COVID they haven't enforced the 2 hour parking limit on Park Street, nor the 1 hour parking limit on Spring Street. Very recently (likely since the Field House construction began) they have received complaints from merchants who say squatting cars take spots from possible patrons. When they do enforce, they typically give 2.5-3 hours on Park Street and 1.5-2 on Spring Street. An officer will go down the street with a notepad and write down license plates and time. If you're in the same spot, you get a ticket.

Ziemba helped clarify the status of the Old Town Garage Site on Water Street. Under previous town managers the town requested that the police enforce overnight parking. More previous managers have not seen the point of enforcement. "Parking is a premium down by Weston Field," Ziemba said, so the Old Town Garage Site helps to ease some of that demand. In fact, the vast majority of cars parked in the Old Town Garage Site belong to students and remain there indefinitely. People have asked why there's not a kiosk where people have to pay for parking. However this is not up to the police department. The parking garage on North Street is

perceived to be too out of the way (approximately 0.5 miles from the middle of Spring Street) — it does not help the Spring Street overflow.

On the subject of overnight parking, Ziembra believes there are two reasons why the policy is in place: fear that Williams College students will overflow streets (Southworth Street, Spring Street, all side streets) and creating problems for plowing and street-cleaning. Sometimes the Department of Public Works (DPW) will call the police to have a car towed so that they can finish the street cleaning.

When asked about the prospect of permitted street parking, Ziembra seemed open to the idea but imagined it would take some time for the town to adjust. And the plowing issue still exists. From an enforcement standpoint, it couldn't be too complicated, like alternate side parking on different days of the week, because the resources don't exist. It might create more problems than it would solve.

Ziembra agreed that a lot of the supply shortage could be created by students and faculty not parking in assigned lots, but in general he perceives a shortage in the town as a whole. Everyday demand is managed well, but big events make the lack of supply more visible. He referenced the fireworks on 4th of July at the Taconic golf course: within the first five minutes, Weston lot is full and then people park all the way down Meacham street. Cable Mills lots and all nearby college lots are full. And then when the event ends, chaos as people try to leave. Often at football games, people ask the police where they can park and often they don't know what to say. "Lots of buildings and lots of facilities, not a lot of parking." And he doesn't want to tell an older driver that they have to park fifteen minutes away and then walk. Ziembra expressed that overflow parking would solve this problem, even if it is financially unproductive. "Parking is such a hot button topic. I imagine it's crippling for the businesses on Spring Street when someone drives down the street and there's not a single spot. Then they say, 'I guess I won't stop.'" People like to park as close as possible to their destination, so businesses fear that a lack of parking will discourage shoppers.

Ziembra seemed very much to like the idea of shared overflow parking, acknowledging that it is not good to have a sea of overflow parking that sits empty for most of the year. He also emphasized that the police were very willing to support any new practices or regulations, within reason, to solve the parking problem. His perspective helped to clarify the scope of the town's parking: managing a spiky parking demand. Furthermore, the lack of enforcement of certain regulations helps to explain current practices

Mark Florczyk, Safety Systems Coordinator (CSS) - November 10th

We met with Mark Florczyk in order to get a better sense of Williams College parking policy, enforcement, and management problems. To start, CSS does not set rules about parking management — they are on the enforcement side. They handle more of the issues around "storage parking" — where students leave cars for longer periods of time — and less temporary

parking in the town. Anything that is on the college property is within Campus Safety's jurisdiction.

One of Mark's jobs is assigning students to their lots. On paper, every lot except for Thompson (by Poker Flats) is filled up. However in practice, a significant number of students consistently park in the Old Town Garage Site by Water Street, even with their parking decals. When one student asks to be moved into a lot that they perceive as having space — because it does — Mark is unable to give them this spot because, technically, it is still designated to a certain person. This contributes to underutilized parking and some students essentially having *two* parking spots on (or very near, with respect to the Old Town Garage Site) campus. Mark's proposed solution for this problem is a single student parking decal which gives a student access to any student-designated lot. No assignments means lots are first come, first serve.

We were also interested in Mark's perception of staff and faculty parking as a faculty member himself. He said that it differs even around different parts of campus. He arrives pretty early and parks in either the Upper or Lower Chapel Lot by the Sawyer Library. However, by mid-morning, both lots are relatively full. Parking in central campus, however, is pretty easy. Conversely, he says that there is not enough parking in the small lot shared by Driscoll dining staff and Spencer art building staff. Since dining staff arrive very early in the morning, Studio Art professors often park in the next closest lot: Lower Chapel, across Route 2 and down the road. At the end of the day, just like everyone else, faculty and staff also like to park close to where they are going and they can get frustrated by the lack of available spots.

During the interview a student walked in to pay a \$701 boot-removal and repeat offender fee. He was a freshman who was not supposed to have a car on campus — a rule which Mark said is in place to manage the undersupply on the campus. In addition to the hefty fine, the student would not be able to park on campus the following year. Overall, the student seemed rather indifferent. He would park with some older students on Hoxsey Street.

Douglas Schlaefel, Sustainability Project Manager (Office of PDC) - November 13th

Doug helped us understand how the college determines the quantity of parking spots for new developments — such as the upcoming WCMA project. For context, the college has a special relationship with the town to the extent that each new project gets an exception from the parking requirements specified in the bylaws. However, still, new projects don't necessarily look at the surrounding lot availability. Since most of the lots in the college are small, new buildings generally need some new parking, but any excess exacerbates the environmental footprint and cost of the project. A large part of the Planning, Design, and Construction team's consideration goes to equity and accessibility. They need to make sure that a building is equipped to handle the parking demand to the extent that they will never have to force elderly or disabled individuals to walk for too long.

Doug is also one of the people in charge of setting up EV charging stations around campus. A guaranteed spot to those with more energy efficient vehicles provides good incentives for faculty and staff considering purchasing an electric car.

Matt Noyes, Horticulturist and Grounds Manager at the Clark Art Institute - November 16th

Matt Noyes offered insight into more sustainable parking — “best parking practices” — and the feasibility of shared parking specifically between the Clark and Williams College.

The Clark keeps three non-standard types of parking landscape: porous asphalt, grass-crete, and grass. They do also keep some normal, impervious asphalt parking. All three landscapes which impose less environmental impact on the land — through reduction of run-off and usage of harmful leaching chemicals — also come at a higher cost. In addition to higher up-front costs, porous asphalt requires regular “vacuuming” or removal of sand and dirt from the small holes in the surface. Furthermore, standard de-icing chemicals do not work as well and more investment in “greener” salts are required. Grass lawn parking functions best in the winter when the ground is frozen, but as winters get warmer and warmer and the ground is not consistently frozen, this landscape has the risk of becoming a mud-pit. The summer of 2023 was also especially wet and one of their newest grass lots at the Lundgren Center has been out of commission for months. Matt also emphasized that grass lots are really meant to be overflow, but they end up being used most days at the Clark. All of these factors make maintenance more difficult. Finally, grass-crete — which involves a concrete grid with grass growing beneath and within the spaces of the grid — is also more expensive and as the grass has grown up and over the grid, hiding the concrete, it has faced similar problems to the grass lawn parking lots. The Clark only uses grass-crete for fire lanes, a clever way to cut down on underutilized — but still necessary in case of emergency — impervious pavement. Despite all the problems which have arisen from these three sustainable parking solutions, Matt made very clear that he thought the work was valuable. One of the most challenging components is that climate change is actually making grass lawn parking much more difficult to implement and maintain. It is a problem which doesn’t get enough attention and will ultimately require a very creative solution, he said.

In terms of shared parking, Noyes said the overflow lot off of Route 7 is not occupied from September to April. During the summer months, however, they park all of their staff there. There are about 94 spots, according to our survey. Cars park on strips of grass with concrete partitions demarcating spots. Noyes seemed generally open to the idea of allowing the college to use the overflow — or conversely, to convert the space and have Clark staff park in the college Parking Garage — but expressed concern about two issues: the grass lawns make the overflow difficult to plow in the winter and the Williamstown Theatre Festival uses the Parking Garage during the summer. He agreed, however, that the parking lot is not helping anyone during the non-summer months. Furthermore exploration of this relationship would require examination of the college’s and Clark’s typical annual peaks and a discussion between the two institutions.

Alex Taft, Senior Planner of Hanover, NH – December 1st

To get a better understanding of the parking landscape of another northeast town, we spoke with Alex Taft, Senior Planner of Hanover, New Hampshire where Dartmouth College is located. In 2021, Hanover had a population of 11,523 people, a median income of \$128,530 which is slightly more than Williamstown for both statistics but comparable. (Sustainability Master Plan, n.d.)

Hanover has a downtown parking committee which among other things, plans for parking studies to be done about every five years. The latest report from 2019 by Desman Design Management studies parking supply and use in Hanover downtown. Like many of the previous reports, Taft noted that the takeaways were that there was not enough parking to meet peak demand at 1pm. Many suggestions for improvement involved increasing the height of existing parking garages to increase parking supply. (DESMAN Design Management 2019) As with many New England towns, most people do not live in the core town, and thus need parking spaces available for them in town.

In 2022, however, a Dartmouth college student did a report on parking in multifamily housing units. (Macri 2022) Based on usage audits of five different locations, Macri found parking to be oversupplied and suggested that bylaws mandating more parking than residents need should be questioned and changed.

When asked about current parking reform measures Hanover is taking, Taft they are putting forth a proposal for significant amendments to the town's parking regulations. These documents can be found in the supplementary materials. In the proposal, the planners acknowledge the vast environmental impacts of subsidizing parking as well as parking regulation's contribution to a vast housing shortage in the town. If the planning board takes on these amendments, it will take them to a vote at the town meeting in 2024. As in Hanover, NH, removing or reducing parking minimums is a step that many places across the country are taking.

According to the draft of Hanover's Sustainability Master Plan, their goals for parking reform include "reducing or removing parking minimums, introducing parking maximums, and encouraging shared parking," which their proposed parking amendment supports. (Town of Hanover, New Hampshire 2023) These are the same steps that we propose in our recommendations for Williamstown. Unlike Williamstown, however, Hanover already has paid parking.

In the town, Taft noticed that there is a growing awareness of environmental concerns, such as reducing parking areas because its impermeable surfaces increase stormwater runoff. When asked how people on the board and in town felt about reducing parking requirements, Taft said that "it tends to be a sensitive topic." Some people think parking reform is needed, while others see no need for change.

Ed Kinkade, Flowbird Vice President of Sales, Northeast – December 1st

We talked with Sales Representative Ed Kinakde at Flowbird to get a quote on parking meters. The data and information from his interview can be found in the Paid Parking solutions section.

Scott Henderson, Project Manager for Upcoming WCMA Project – December 7th

We met with Scott Henderson to inform our Future Project's analysis of the upcoming WCMA development and much of the information from this interview is already found in that section. Scott informed us of a preliminary parking study which they performed — through Fuss and O'Neill consultants — estimating museum parking demand and exploring the possibilities of using the Parking Garage as overflow. Similar to the conclusions in our study, they found that the parking garage is severely underutilized — reaching an absolute peak of 50% usage over the course of a week, where optimal regular usage is around 90% — and therefore could be used as overflow. Scott said they were looking into building a safe crosswalk across Route 7 with flashing lights to make this overflow possibility more walkable. Furthermore, he mentioned the possibility of building a pedestrian path which would cut up the hill, behind the town hall, to the new WCMA site, also encouraging walkability. The other overflow option they are exploring is the Clark overflow lot mentioned in the Shared Parking solution section, as well as in the Matt Noyes interview summary. If they were to take this option they would have to pave the lot completely to make it plowable during the winter.

When we asked about construction worker parking during building projects — currently the Davis Center — Scott said that this has been an issue recently. In fact, workers are assigned to park at the cleared site where the new WCMA will be located. There is also a small strip of assigned construction parking in front of the Health Center. However, because the majority of parking is far away, construction workers park in the Spring Street Lot, Bank Street, and in the smaller lot behind Spring Street Market. Scott has often told the contractor to tell their employees to park where assigned, but, at the end of the day, American parking behavior is like a law of nature and people like to park as close to where they are going as possible.

Jamie Art, General Counsel for Williams College – December 8th

Scott Henderson helped to set up a quick meeting with Jamie Art to more deeply understand the college's relationship to the town, in terms of planning, design, and construction. First, Jamie reviewed the bylaws more generally and then specifically relating to the college. The town, as a whole, has shifted away from the mindset of making sure there is always parking nearby, available, and free and towards the mindset of pavement reduction. Before the bylaw had just a minimum and, as of 2003, it has the exact ratio, including both a minimum and maximum, referenced in our Regulatory Audit section. There is no bylaw which addresses parking specifications for educational uses. As a result, every building the college constructs is an unlisted use and therefore must go before the Planning Board and be subjected to development plan review. However, Art emphasized that the college has a high interest in getting the amount of parking right. Too much means they are wasting money and space — parking spots cost 10 to

15 thousand dollars, he said — and too little means that they have either stunted the new development or they have to spend a lot more money to fix the problem. They also care about the environmental benefit of reduced pavement.

There has been discussion, Art mentioned, of creating an overlay district on the college and there could eventually be a cap placed on the amount of parking the school can produce. After the cap was set, the school would have to manage the parking stock it already has. This would be a product of the comprehensive plan. Jamie mentioned that, in the past, the college would take people's license plates to keep students from driving around during the week. They would get them back on weekends. This helped reduce student-caused parking demand in the town center.

Jamie finally expressed interest in encouraging town walkability as a way to cut down on demand for on-site parking. In the WCMA case, he offered that, if people parked in the Garage or on Stetson Court, the museum could set up art installations all along the walking path. People would be encouraged to park further away to experience these interactive exhibits outdoors. He also suggested some sort of bike share system using WCMA's iconic pink colors.

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