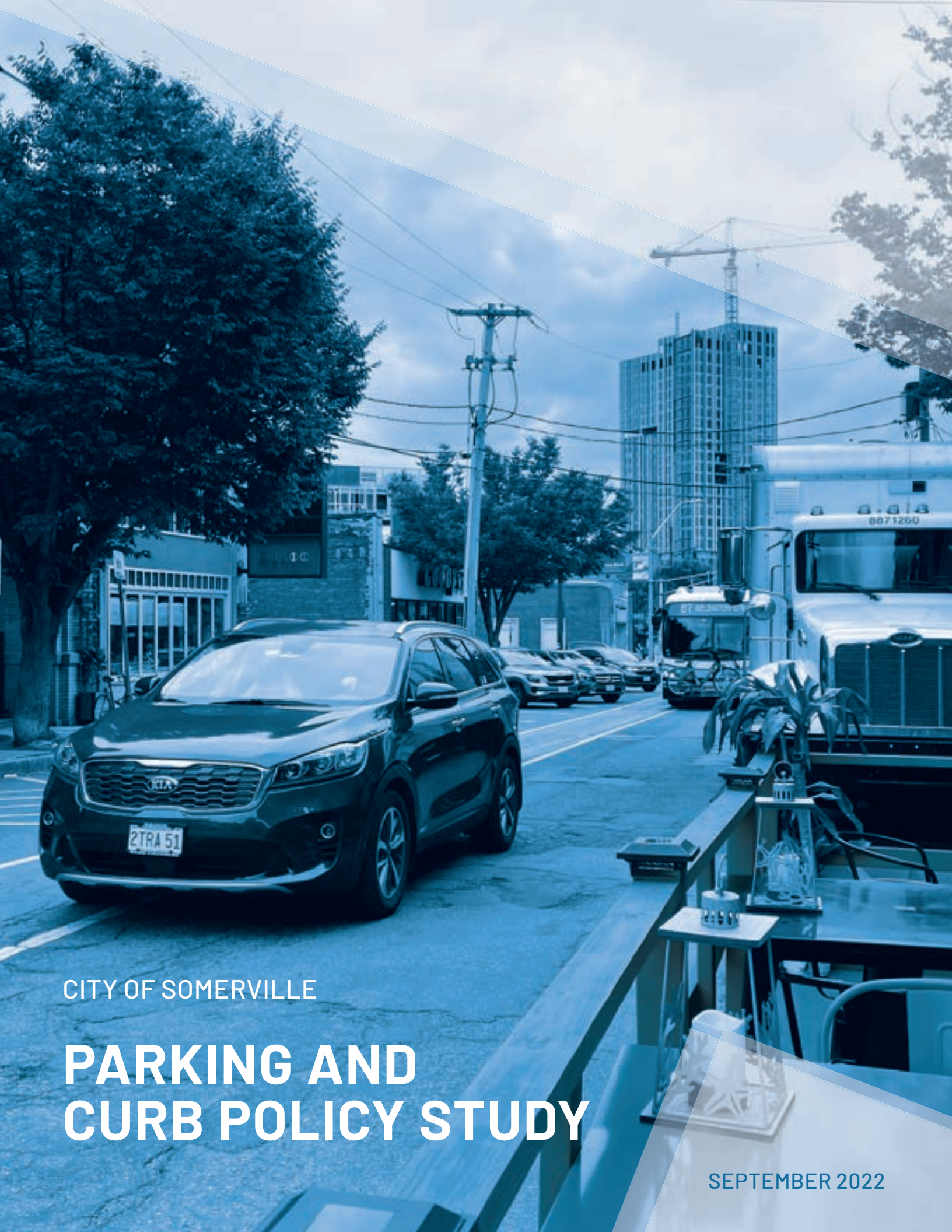

CITY OF SOMERVILLE

PARKING AND CURB POLICY STUDY

SEPTEMBER 2022

Acknowledgements

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NELSON NYGAARD

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Somerville faces numerous challenges at the curbside that will grow and shift as development and dynamic new mobility technologies continue to evolve. Addressing these challenges means adopting a prioritized, comprehensive approach to curb management with clear leadership, widespread integration into other planning initiatives, and close coordination between all curb stakeholders.

Parking & Curb Policy

This report outlines a set of key strategies which directly respond to the challenges observed within the City.

These strategies address operational challenges, the need to reduce future parking demand in Somerville, and the need to equitably allocate limited curb space. Each curb management strategy is prioritized, tied to key objectives, associated with affected stakeholders, and coordinated with other strategies to ensure synergy through the implementation process. Successful implementation of these strategies will lead Somerville to a curb future which supports community goals of livability, sustainability, equity, and economic growth.

The list of selected strategies is long and not all strategies may be necessary to resolve curb challenges throughout the city. Moreover, not all strategies need to be implemented immediately and are described so that their administrative policies and operational practices can be refined and established in anticipation of the need for them arising. The strategies are accompanied by an implementation timeline to illustrate when and why strategies should be prompted as necessary.

A more **sustainable, equitable, and accessible** transportation network is Somerville's **priority**.

Front-door on-street parking at all destinations cannot be guaranteed if Somerville wants to achieve this vision.

CURB MANAGEMENT OBJECTIVES

The curb policy objectives described here are direct responses to the key challenges identified through inventory and utilization analysis, discussions with the Parking Study Task Force, and feedback from public workshops over the course of this study. These objectives were developed in close collaboration between this study team and Somerville's residents, business owners, visitors, and other curb users and operators to reflect the long-term vision for the city put forth in SomerVision the Climate Forward Plan, the Electric Vehicle Charging Report, and other adopted planning documents. They also align with key ongoing planning initiatives including Vision Zero Somerville, the Bicycle Network Plan, and the Shared Mobility program. These curb management objectives serve as guiding principles for parking and curb administration today and in Somerville's future – as technology, management, and operations continue to evolve, these objectives should steer the implementation of future strategies, even those not explicitly anticipated by this study.

Maximize Curb Effectiveness

Maximizing curb effectiveness means taking full advantage of Somerville's limited curb resources by putting **the right curb regulations in the right places at the right times** across the city. Policy, regulation, and pricing must intuitively match people with curb functions that meet the needs of their activity type. Flexibility to adapt to changing demands throughout the day, season, and year is woven into this study's recommended strategies.

Improve Pickup / Drop-Off

Passenger pickup and drop-off activities increasingly contribute to growing incidences of double parking, blocked crosswalks, and obstructed bike lanes in Somerville's busy squares and main streets. Ride-hailing activities will become more challenging as deliveries and street dining compete for the limited available passenger loading space. Enhancing the experience and **coordination of pickup and drop-off activities** will reduce conflicts and improve safety for Somerville's residents and visitors.

Improve Commercial Loading Availability

Loading activities increasingly contribute to worsening street operations. As demand for loading and takeout activities continues to grow, incidences of double parking, improper loading, and unsafe loading in pedestrian or bicycle infrastructure will also grow. **Improving commercial loading** with curb management must remain front and center in Somerville's curb strategy to mitigate disheartening safety and emissions trends.

Support Local Businesses

Somerville's local businesses rely on curb space to receive critical goods and support customer and employee access. As available curb space becomes more scarce, Somerville's local businesses must be supported with regulations and processes which allow them to thrive. **Small businesses, employees, and their customers should be considered priority users of curb spaces** in commercial areas of the city.

Give People More Space

Providing outdoor space for dining, recreation, artistic expression, and active street installations supports Somerville's goals for vibrancy, economic growth, and public health. Outside of public parks, the curb space is the most likely portion of public space that can **provide additional people space**; smart curb management means providing this space strategically and in a manner which avoids conflicts with other modes.

Decrease Drive Alone Mode Share and Vehicle Miles Travelled

Carbon emissions from gas-powered vehicles on Somerville's streets comprise a large portion of total emissions. Decreasing the percentage of people who drive alone to their destinations and decreasing the total number of miles travelled by vehicles in Somerville will **reduce emissions and support a healthier climate future**. Somerville's curb spaces should be regulated in a way which does not incentivize excess automobile travel when other transportation modes can function more sustainably.

Expand the Bike Network, Safety and Access

Bicycles continue to grow in popularity across Somerville, with 7% of commuting residents riding to work. **Protecting and supporting safe riding** will ensure that users of all ages and abilities can ride without harm to work, shopping, appointments, and recreational activities across the city and beyond. Somerville's curb space should be managed in a way that provides adequate space for critical bicycle infrastructure and minimizes dangerous conflicts between bicyclists and other modes, including goods delivery and ride-hails. This will further support Somerville's Bicycle Network Plan.

Improve Transit Performance and Access

The MBTA and other transit operations can increase reliability and ridership by providing more efficient services that take advantage of priority infrastructure. Effective curb management should **provide transit priority on the most valuable routes** and ensure that all passengers can easily access and ride buses and other transit vehicles. Addressing curb management to improve transit service will be key to enabling Somerville's Transit Network Plan.

Ensure Accessibility for All

Somerville's curbside must serve all Somerville residents and visitors, regardless of how they choose to or need to travel. Limited curb spaces must be prioritized for those who need them the most, and **curb and parking policies must consider the needs of residents with mobility limitations**.

Promote Equity and Inclusion

Somerville's curb policies must consider the needs of residents and visitors with specific mobility needs, lower incomes, unique living arrangements, work requirements, and other special needs and statuses. **Curb policies should be nuanced enough to ensure that these groups are not faced with inequitable mobility challenges** while remaining simple enough to implement and explain to a diverse community.

Improve Transparency in Decision-Making

Effective curb management relies on investment from the community. Somerville's **curb management regulations, administration, and enforcement should be developed transparently** and with sufficient input from diverse members of the public.

On-Street Parking and Curb Management Study Process

This study included five primary components:

1. Public Outreach
2. Existing Conditions Assessment
3. Subarea Parking Profiles
4. Future Trend Analysis
5. Recommendations and Final Report

PUBLIC OUTREACH PROCESS

Public outreach was the critical and continuous element of the study process. Members of the public and key stakeholders were engaged through a variety of means throughout the study to set the vision and goals for the future, gather feedback on existing conditions, identify key issues and opportunities, and vet recommendations.

The public was primarily engaged through the following means:

1. **Parking and Curb Use Survey made available to the public between November 2021 and January 2022.** The survey asked respondents a range of questions to understand how they currently interact with the curb system, what their priorities are for future regulation of the curb, and their tolerance for some high-level policies proposals that would be considered later in the planning process.
2. **Existing Conditions and Goals Public Meeting held in two sessions on November 9th and 10th, 2021** and attended by 147 people across both sessions.
3. **Draft Recommendations Public Meeting held in two sessions on June 27th and 29th, 2022** to present key findings from the curb inventory and utilization analyses, develop consensus around key objectives and the curb prioritization framework, present draft recommendations, and gather feedback on key strategies to solve issues identified throughout the process.
4. **Somerville Parking Study Task Force Meetings held at four points throughout the process.**

- **Task Force Meeting #1 (September 14th, 2021)** focused on introducing the scope and timeline of the project, developing goals, and sharing findings from early data collection efforts.
- **Task Force Meeting #2 (February 28th, 2022)** discussed findings from the curb inventory analysis as well as neighborhood subarea profiles, the persona system, and the pathway to recommendations development. Task Force members expressed the need to emphasize accessible parking and on-street EV charging. They also reinforced the desire to move parked vehicles off of the street into off-street facilities.
- **Task Force Meeting #3 (March 28th, 2022)** involved refinement and finalization of goals related to recommendations, findings from the future parking demand modeling effort, and refinement of assumption that would feed in to future infrastructure changes in that parking model.
- **Task Force Meeting #4 (May 4th, 2022)** presented key draft recommendations and the draft Curb Prioritization Framework for feedback from the Task Force members. Task Force members introduced key ideas such as moving to zone-based permits but continuing to offer a citywide permit at a higher price, or charging for permits by the month (which would become much easier in a virtual permit system).

5. **Policy Recommendations Survey to gather feedback on draft recommendations.** 2,170 responses were gathered through this survey.
6. **Business Town Hall meeting to share details about the Curb Profile** and discuss business-specific draft recommendations with local business owners and workers.
7. **Tabling conducted at the Union Square Farmers' Market and Holland Street Mobile Market** to share draft recommendations and promote the feedback survey.
8. **Promoted survey opportunities through City digital communications channels** such as the City newsletter, Mobility Division newsletter, City Instagram, City Facebook, and City Twitter.

DELIVERABLES

Existing Conditions Assessment

The Existing Conditions Assessment was the first phase of the project. This work involved defining geographic subareas across Somerville and analyzing existing parking, permit use, curb use, and demographic trends. Detailed findings from this effort were documented in a Summary of Existing Conditions document and summarized below.

Somerville Parking Profile

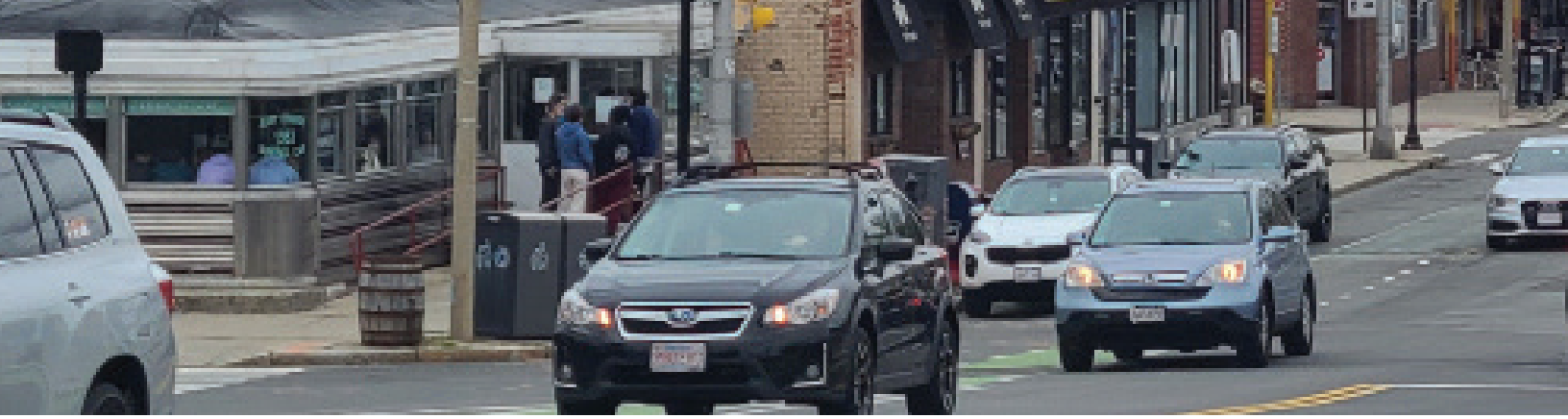
The Somerville Parking Profile was the first major deliverable in the Curb Study. This document highlighted key findings in each geographic subarea of Somerville related to parking and curb use, demographic trends influencing neighborhood needs, and detailed curb inventory and utilization data analyses. It also summarized the current parking and curb administration, identifying challenges and opportunities. This standalone document is viewable here: https://voice.somervillema.gov/13396/widgets/40230/documents/31604

Future Trends

Following the comprehensive analysis of existing curb and demographic data, the project team projected future parking demands in Somerville based on expected demographic changes and future development. This modeling effort was intended to help identify policies which manage future on-street parking demand free up valuable curb space for other uses. Findings from this demand model were incorporated into development of recommendations in the final report. The impact of specific strategies on parking demand is indicated in the strategies section of this document.

Recommendations and Final Report

Following the completion of the preceding tasks, the project team developed final recommendations contained this final report. Recommendations incorporate public and stakeholder feedback, findings from the Somerville Parking Profile, and the projections developed during the Future Trends effort.

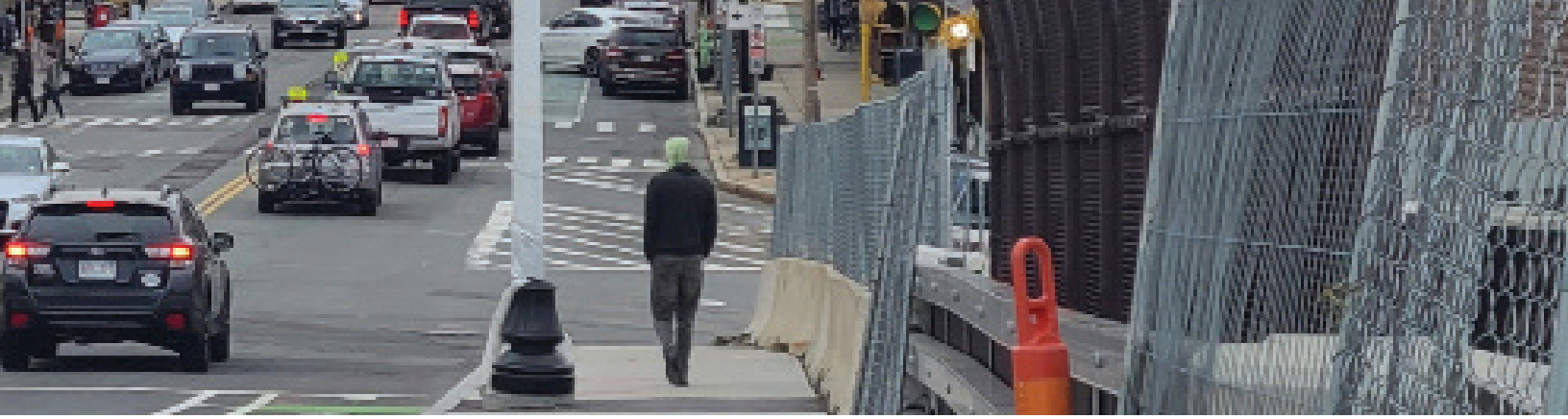


Public Meetings

Two **public meetings** were held at key stages in the project process.

The **first meeting** was held in two sessions on November 9th and 10th, 2021. The objectives of this meeting were to introduce the project scope and goals, share results of existing conditions analysis, create an opportunity to provide feedback on existing curb and parking challenges and opportunities, and establish a common understanding of how Somerville might help solve these issues. This meeting was attended by 147 people across both sessions. Key findings from the first meeting were:

- Participants agreed that equity should be one of the study's top priorities. They encouraged the project team to consider the needs of residents of all ages, needs, and abilities, families, caregivers and those on non-commute trips when developing curb management programs and policies and during the public engagement process.
- Bicycle and pedestrian safety are of high concern, and there is a desire to allocate more street space to increase the safety of these modes.
- Accessibility is also strongly desired and identified as an equity issue as many sidewalks are not maintained, are not ADA accessible, or are often impeded by trash bins or trees on other hindrances that require persons with disabilities and residents to walk on the street.
- Business owners expressed concern that patrons and employees, especially those from out of town, have found it hard to access their services or place of work when driving and parking.
- Participants would like to understand how the impacts of the Green Line Extension will be considered for the study for parking, walking, and cycling.
- Participants would like to see the impacts of delivery vehicles, trucks, and TNCs addressed especially when they impede bike-lane and sidewalk access. Pick-up, drop-off, and loading zones are desired in both residential and commercial areas.
- Parking permit eligibility and rules should reflect the needs of residents and there should be clearer regulations for residential properties with off-street parking.
- Visitor permit rules should take into account the availability of metered parking or other time-limited parking and reforms may require a concurrent change in inventory regulation.
- Participants would like to see greater enforcement of illegal parking and idling.



The **second public meeting** was held in two sessions on June 27 and 29, 2022. This meeting was intended to present key findings from the curb inventory and utilization analyses, develop consensus around key objectives and the curb prioritization framework, present draft recommendations, and gather feedback on key strategies to solve issues identified throughout the process. Key findings from the meeting include:

- Not all residents have access to convenient bike parking at home. Can we use curb areas for public, sheltered bike parking?
- More loading zones need to be added, but make sure those loading zones are enforced to reduce double parking activities by ride hails and delivery services.
- If zone-based parking permits are implemented, being able to park outside your zone will be critical for people with mobility impairments, including those with temporary mobility issues.
- Loading zones need to be better delineated, perhaps with paint on the roads in addition to signs.
- More enforcement is needed, particularly relating to loading zones, delivery vehicles, and parking in commercial areas. Attendees raised interest in automated enforcement or remote enforcement in these locations.
- An interest was expressed in earmarking revenue from permit sales and metered parking for reinvestment in multimodal transportation improvements around the city.

Task Force Meetings

The project team also met with the Somerville Parking Study Task Force at multiple points throughout the process, incorporating their feedback directly into the recommendations. Four Task Force meetings were held over the course of the project:

1. Task Force Meeting #1 (September 14th, 2021) focused on introducing the scope and timeline of the project, developing goals, and sharing findings from early data collection efforts.
2. Task Force Meeting #2 (February 28th, 2022) discussed findings from the curb inventory analysis as well as neighborhood subarea profiles, the persona system, and the pathway to recommendations development. Task Force members expressed the need to emphasize accessible parking and on-street EV charging. They also reinforced the desire to move parked vehicles off of the street into off-street facilities.
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KEY PUBLIC OUTREACH FINDINGS

Public Outreach

Public outreach was the critical and continuous element of the study process. Members of the public and key stakeholders were engaged through a variety of means throughout the study to set the vision and goals for the future, gather feedback on existing conditions, identify key issues and opportunities, and vet recommendations.

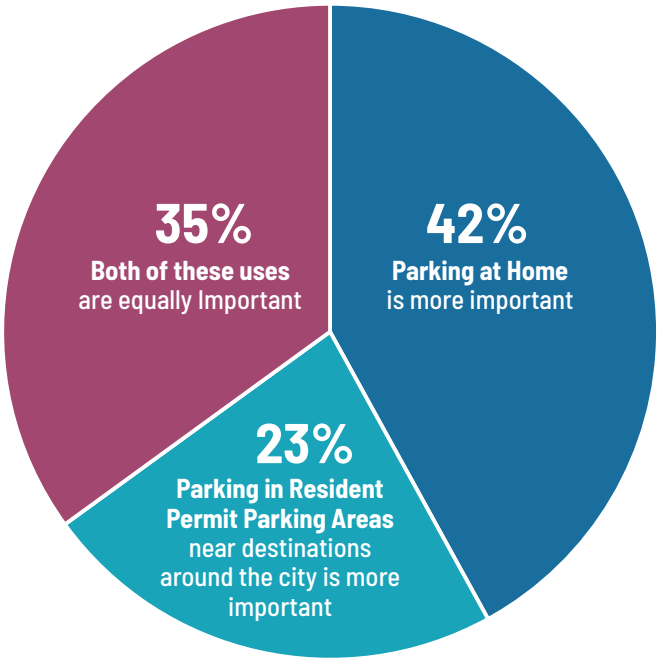
The public was primarily engaged through the following means:

Parking and Curb Use Survey

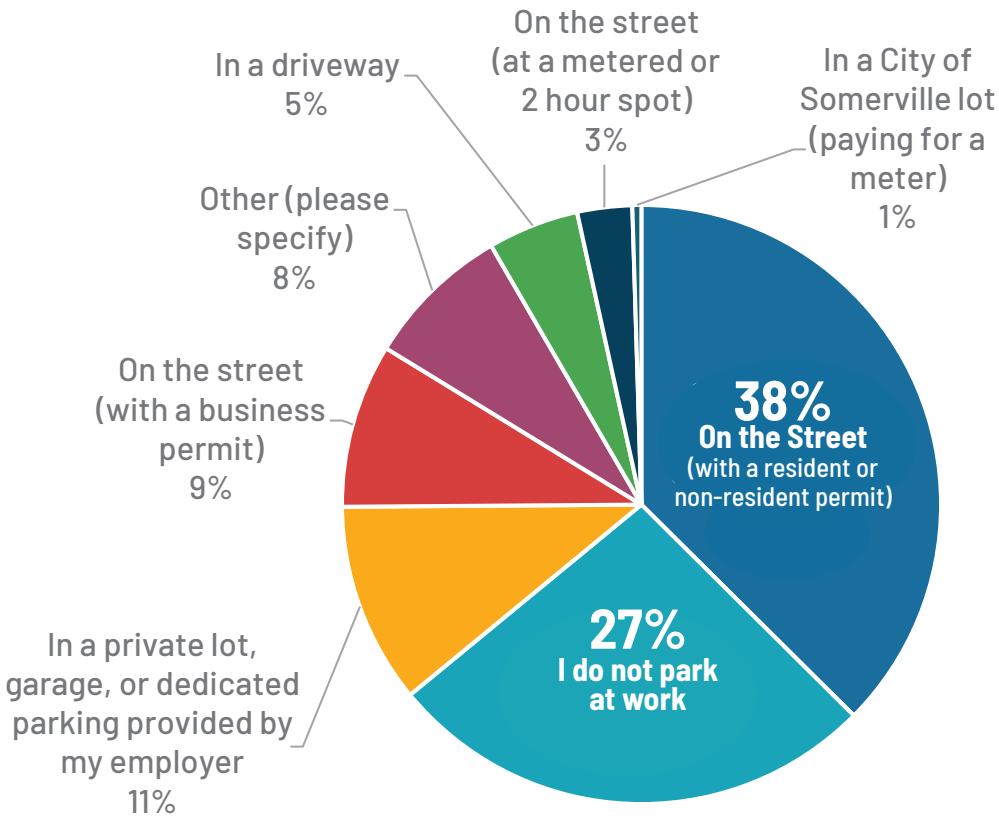
A **parking and curb use survey** was drafted and distributed by the City of Somerville and provided in multiple languages. This survey was made available to the public between October 15, 2019 and December 7, 2021. The survey asked respondents a range of questions to understand how they currently interact with the curb system, what their priorities are for future regulation of the curb, and their tolerance for some high level policies proposals that would be considered later in the planning process. Key findings from this survey were:

- **39% of respondents use personal vehicles for commuting** (aligning with Census journey to work data) but 60%-74% use personal vehicles for grocery shopping, medical appointments, and other errands. Somerville needs to improve non-vehicular options for people to access commercial areas.
- **Commercial parking is valued more highly by the community** than residential parking under current utilization patterns.
- **The majority (67%) of respondents who have off-street parking are parking for free**, while only 7% pay more than $100 a month for parking. This indicates that adjusting the on-street permit price has potential to impact the demand for on-street resident parking.
- **Being able to park across Somerville is considered a valuable perk** of the current resident permit parking program.
- **86% of respondents indicated that they do need to park at car at home at least occasionally**, reiterating the need to provide residential parking even if most commuters do not drive.
- **Just under half of respondents (44%) indicated that they typically park in a driveway at home**, while 38% said that they park on the street.
- **86% of survey respondents indicated that they would not be willing to pay more for permits** even if doing so increased the availability of spaces in their neighborhood. This indicates that most residents do not view parking as a scarce resource under current conditions. Residents would likely be more favorable to rate increases if they felt current conditions made it difficult to park.
- **A large portion of Somerville business operators and employees rely on on-street parking**. Because most small businesses cannot provide off-street parking to employees, many employees (47%) use resident or business permits to park near their place of work. Only 27% indicate that they do not park at work. Making it easier for employees to use non-driving options should be a priority alongside continuing to manage the business permit program.

What is the more important use for a resident permit – to park near your home, or in permit parking areas near destinations around the city?



Where Do You Park at Work?



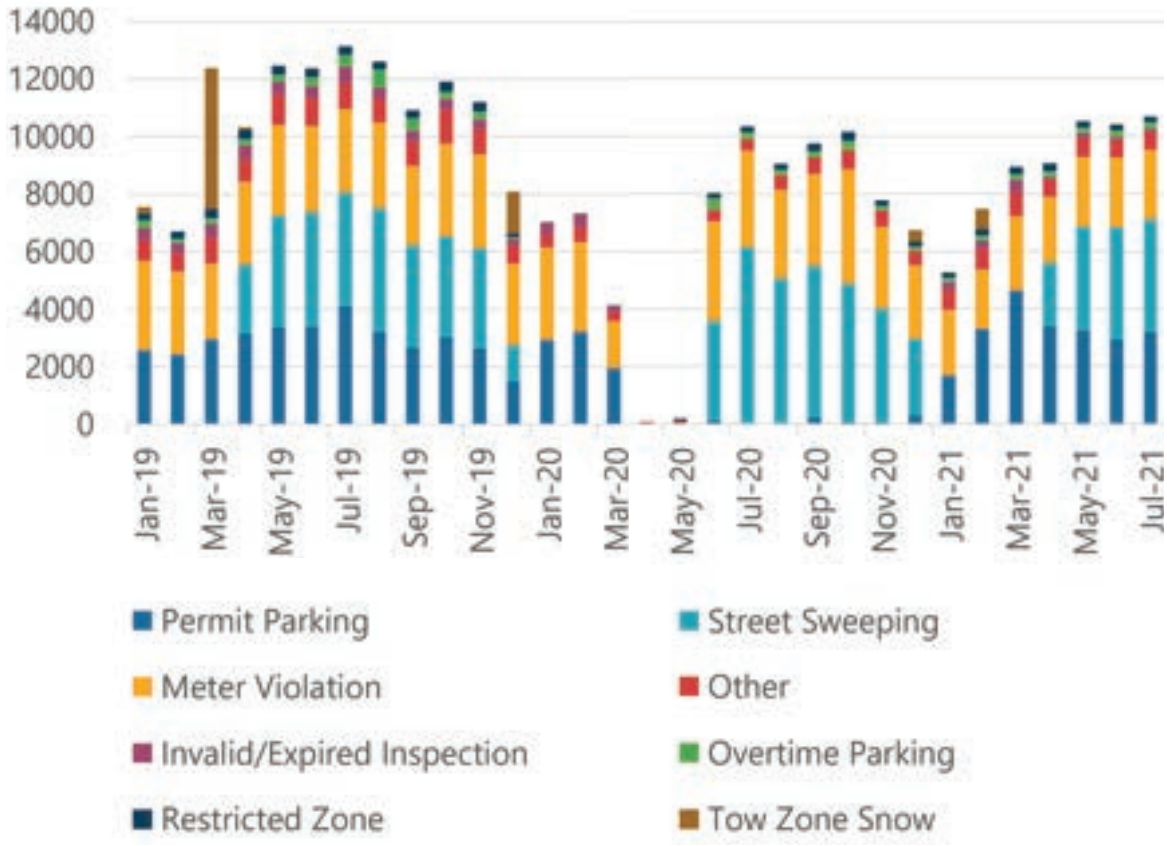
SOMERVILLE'S PARKING DEPARTMENT

Parking Department Duties

The City of Somerville's Parking Department oversees Somerville's nearly 25,000 on-street parking and loading spaces as well as 370 public, off-street parking spaces across multiple lots. The Parking Department regulates these spaces through on-street signage, meters and the issuance of various parking permits that allow residents, employees, and business operators to park on the street. They also coordinate closely with OSPCD and other City departments and advise the Traffic Commission on the development of rules and regulations. Parking Department duties include:

- Managing a budget of $4.5 million dollars (proposed FY22) that supports 50 staff members.
- Administering the City's parking permit programs, including 27 distinct permit types for various user groups. The Parking Department issued nearly 80,000 permits in 2019 for a total of $2.3 million of permit revenue.
- Maintaining, managing, and collecting revenue from the City's over 600 parking meters and kiosks in both on-street and off-street locations and managing metered parking payments via mobile applications.
- Enforcing curb regulations throughout the city, covering all neighborhoods and regulation types, for a total of 200 miles of curbs to enforce. The Parking Department issues, on average, over 9,000 citations per month for street sweeping, metered parking violations, permit use violations, and other violation types.
- Addressing user complaints and issues as well as citation appeals.
- Installing and managing Somerville's nearly 8,000 parking signs.

Violations Issued by Type Over Time

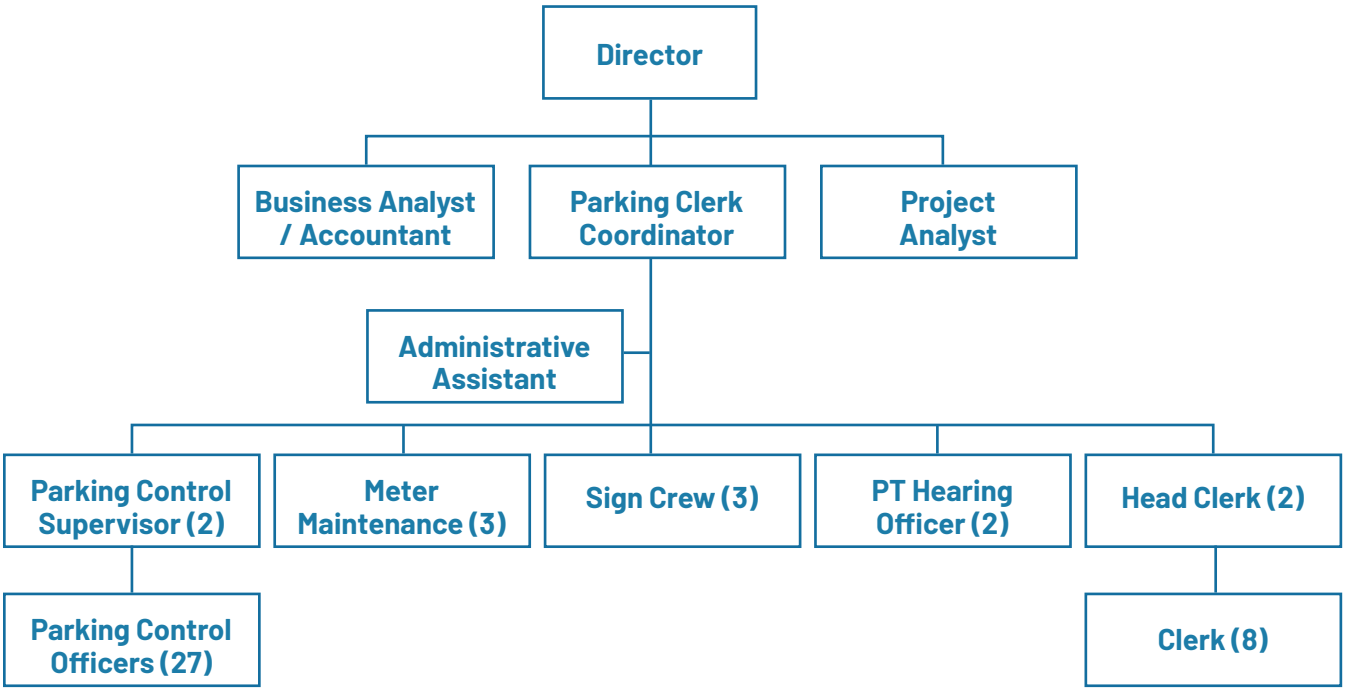


Current Staff Structure

The Parking Department manages the city's parking through three divisions: Administration, Enforcement, and Maintenance. Street regulations are enforced by 15 Parking Control Officers during the day,11 during the evening and 2 overnight. Officers follow specific routes but also respond to complaints and specific needs. Officers operate both on foot and in their personal vehicles.

The Department's current project management capacity is limited and current staff are largely unable to take on additional projects within their existing workloads. Adding more staff and resources within the Parking Department to support the implementation of strategies in this document will be key to Somerville's curb management success.

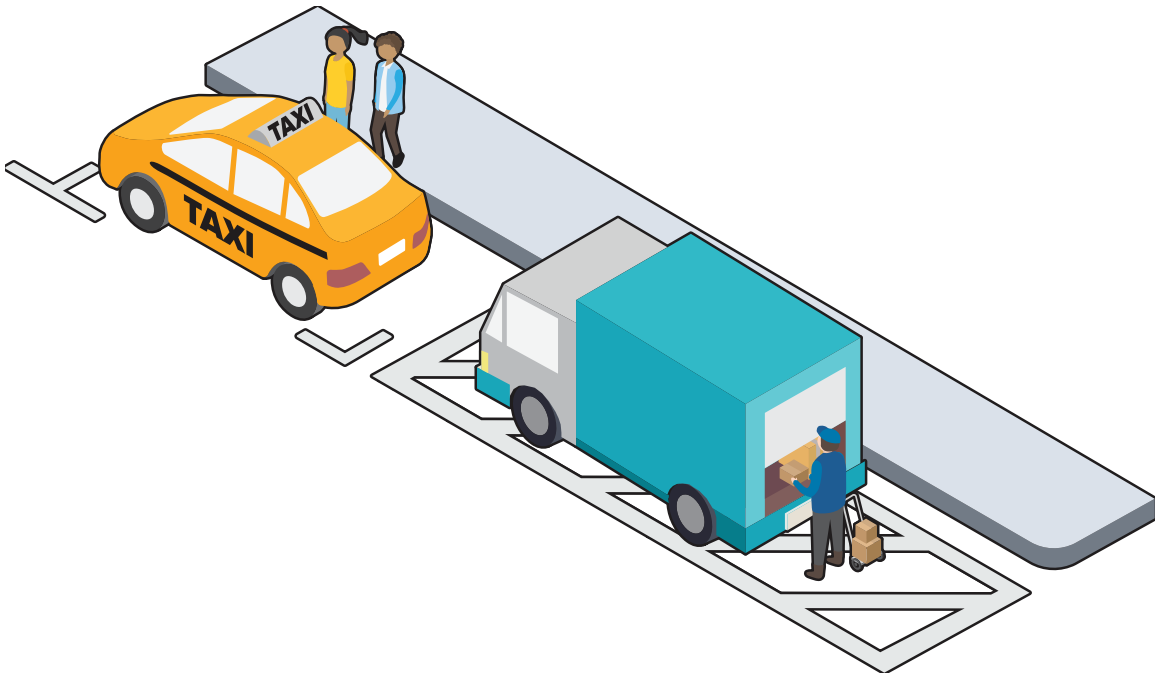
Existing Parking Department Staff Structure



ON-STREET CURB FUNCTION INVENTORY

Categories add up to over 100%. In some cases, curb uses overlap (e.g. bike lanes adjacent to parking).

Curb Use	Miles of Curb	% of Total Curb
Driveways	36.77	19.0%
Vehicular Travel Lanes	71.86	38.0%
Parking	95.49	50.0%
Bus Stops	2.6	1.4%
Loading Space	.97	0.5%
Dedicated Bike Infrastructure	20.58	11.0%
Dedicated Transit Infrastructure	1.34	1.0%



TOP FINDINGS

RESIDENTIAL DEMAND

1

71%
of potential curb space is allocated solely to vehicles

52%	19%
Parking and Loading	Curb Cuts
Curb Allocation	

Looking toward a more multimodal future, Somerville should prioritize reallocating the curb to better serve people rather than vehicles.

2

15%

Right-of way dedicated to
On-street parking and loading

Comprising more than 3% of the city's entire land area, this doesn't include garages, parking lots or residential parking spaces.

3

25,000
On-street parking spaces

On-street parking space density per street mile is highest around **Davis and Ball Squares**; lowest in **Inner Belt, Assembly Square,** and **Brickbottom**.

4

73%

Parking and loading curb space
Allocated to permit parking

Reallocating this space to other uses will be necessary to adequately serve all curb needs.

5

While most residents do not drive alone to work, most households do own a vehicle, and many do not have off-street parking

37%	76%
Residents driving alone to work	Households with vehicles

Reallocation of on-street parking spaces must balance resident-parking demand reduction with appropriate accommodation for residents who need street parking to access jobs, services, and other necessities.

6

15%

Parking and loading space allocated to
Short-term Parking

The roughly 3,700 combined spaces are a fraction of the spaces reserved for resident parking. Metered and time-limited parking spaces that support access to small businesses are concentrated in **Davis Square**, along commercial corridors—and in rapidly changing districts like **Assembly Square, Inner Belt,** and **Brickbottom**.

7

207

Accessible on-street parking spaces

Across the city, that's six fewer than the number of loading zones.

8

10%
Curb Space

Allocated to loading, bus or bike lanes, or parklets and dining space

Curb space dedicated to multimodal infrastructure is not evenly distributed across the City. This does not align with Somerville's mode share goals.

9

57%

of workers
Drive alone to Somerville

That's 13,500 people generating substantial demand for daytime non-resident parking throughout the City that cannot be accommodated entirely through existing off-street parking.

TOP FINDINGS

ON-STREET PARKING UTILIZATION

A sample of curb utilization data was collected in the field on key residential permit parking blocks of each subarea throughout the city to determine the demand for on-street parking. Additional data was collected in key commercial areas and in areas where high demand was expected to support understanding of commercial parking demand.

In order to observe peak parking conditions, utilization data was collected on early weekday mornings in residential areas when residential parking is busiest. In commercial areas, data was collected on both weekdays and weekends from 12 PM – 8 PM when these areas are busiest and when metered parking is in effect. Utilization in mixed residential and commercial areas was also collected on weekdays from 10 AM – 6 PM to determine how daytime commercial demand impacts residential parking.

1

67%

Avg overnight utilization of resident permit spaces

during-peak occupancy counts

This varies significantly between neighborhoods and among individual blocks – with many areas offering ample and consistent availability, but many experiencing constrained availability most of the time.

2

57%

Avg daytime utilization of resident permit spaces

39%	60-74%
Commute	Errands

Personal Vehicle Usage

Many residents don't drive to work on a daily basis, preferring to use their vehicles for grocery shopping, medical appointments, and other errands.

3

2.5

Registered parking permit per on-street permit space

Despite three-fourths of all curbside spaces being designated for resident-permit parking, the number of registered resident permits exceeds this supply.

__Union Square__, __Prospect Hill__, __Duck Village__, and __East Somerville__ have the highest ratios of permits to spaces—as high as 3 permits per space — making parking more difficult to find. In contrast, __Magoun Square__ and __Winter Hill__ feature only 2.2 permits per space, and observed utilization demonstrates that parking is less full in these areas.

4

The ratio of permits to spaces affects occupancy

70% Occupancy	59% Occupancy
HIGHER RATIO Union Sq	LOWER RATIO Winter Hill

Occupancy and permits-to-space ratio

Space availability was lower in areas with higher ratios of permits to spaces, and higher in areas with fewer permits. Hillside and Teele Square show the highest observed parking occupancy in the city, while Winter Hill, with its lower density and driveway access at most homes, shows the lowest overall occupancy.

5

Active Permits

Fall below the number of **Registered Permits**

Many people move out of the city during the year and no longer use parking, but do not report their move to the City, leaving their permits on record. Investments in permitting technology can improve the City's ability to track the true number of active permits.

6

Density of Permits

Tracks strongly with patterns of **High Density and Low-Income Housing**

Areas like East Somerville, where housing is dense and incomes are lower, show the highest concentration of permits. These areas must be given special consideration when permit policies are adjusted. Low-income residents often do not have access to off-street parking but require a vehicle to reach non-transit-accessible jobs around the region.

7

OVERNIGHT PARKING

On-street residential permit parking is not overutilized, **averaging 67% occupied** across the city. However, a portion of blocks are highly utilized, making parking challenging in some areas.


4X4
2WBC 51
T50:275
COMMERCIAL
Trucks.com

TOP FINDINGS

COMMERCIAL DEMAND

1

Two-Hour Except by Permit Parking

Is highly utilized, when available

Shared parking between residents and visitors is popular in commercial areas such as **Union Square**, where the high utilization (77%) of this parking indicates an opportunity to add parking meters.

2

Unregulated Meter Parking

Before 8 AM and after 8 PM

Residents may use these spaces for storage, but they seldom do—most residents don't arrive or depart outside the meter period, leading to spaces being underutilized overnight. Utilization may increase if they are specifically signed for permit parking overnight.

3

Only 6% of Parking Available to Visitors

in Hillside and Teele Square neighborhoods

For patrons of local businesses in the these neighborhoods, parking on most of **Holland Street** and **Broadway** is limited to two-hour parking without a permit at only 39 meters, one of the lowest rates for non-permit visitor parking in the city.

4

Impact of New Loading Zones

Metered space reductions in commercial areas

Given the non-permanent nature of these zones in areas like **Davis Square**, long-term impacts are difficult to discern, but it is expected a large number of these zones may be made permanent to support growing loading demand in Somerville's commercial districts.

PARKING AND CURB PROFILE

The Curb Profile is an assessment of the characteristics of curbs and on-street parking in distinct areas of Somerville. The Curb Profile, shown on pages 16-17, documents the supply of parking and other curb spaces, the usage of those spaces, the usage of permits tied to those spaces, public feedback regarding curb use and parking, and the demographic characteristics related to these patterns. The Curb Profile also identifies specific trends, challenges, and opportunities related to curb use and parking across all areas of Somerville.

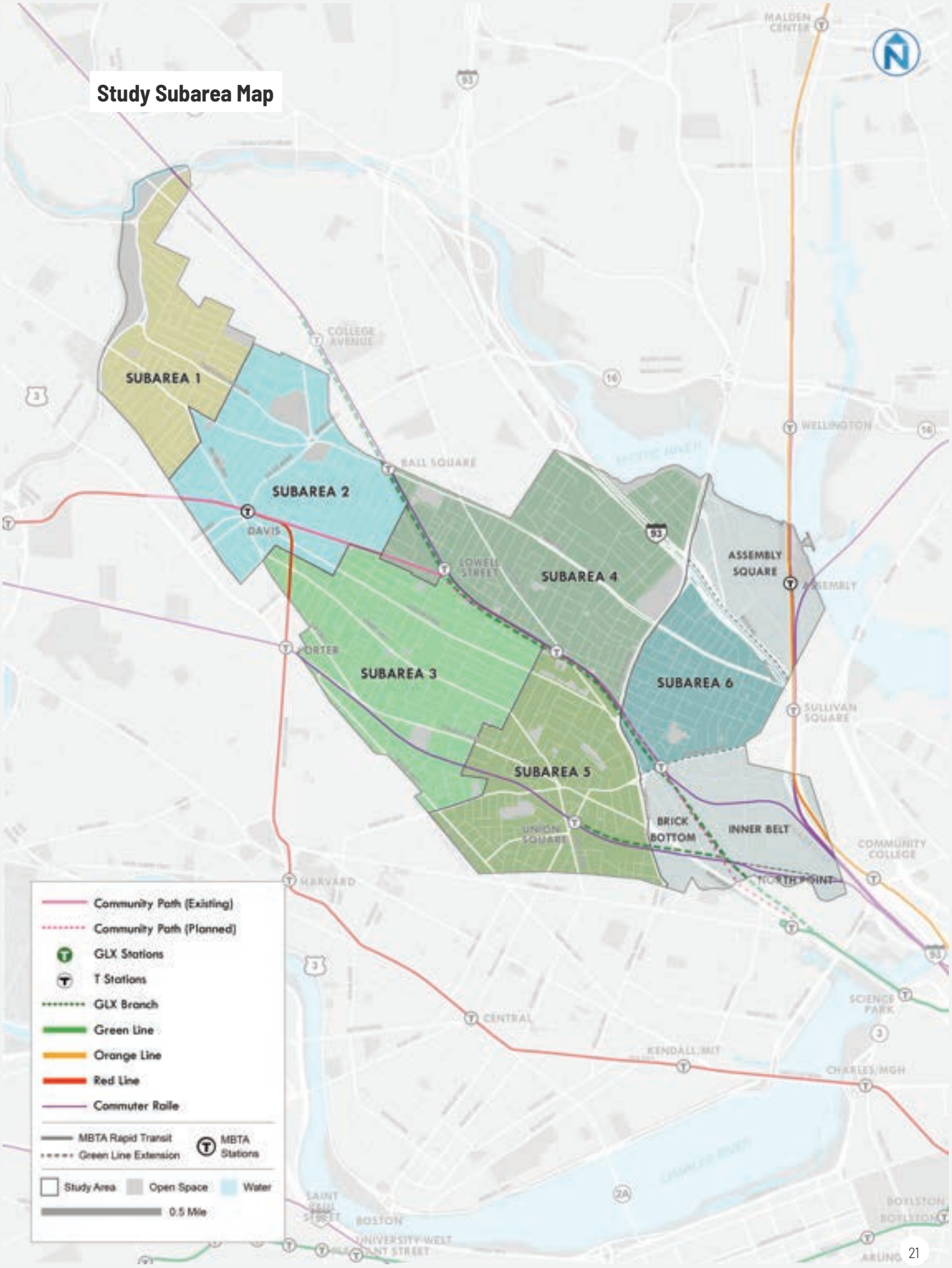
Study Subareas

Somerville is a diverse city with distinct neighborhoods, each of which features its own parking and curb utilization patterns and challenges. To better understand the differences in curb use between neighborhoods, the project team divided the city into the subareas shown in the table below. Special Subareas are areas that are rapidly transitioning and have unique curb characteristics. These areas are separated from the other Subareas and will be assessed primarily through future trends rather than through existing conditions, as current conditions are expected to change in the near future. A map of the subareas is on the opposite page.

Study Subareas

Zone 1	Zone 2	Zone 3	Zone 4	Zone 5	Zone 6	Special Zones
Hillside	Davis Square	Porter Square	Magoun Square	Union Square	East Somerville	Assembly Square
Teele Square	Powder House Square	Spring Hill	Winter Hill	Boynton Yards		Inner Belt
	Ball Square	Duck Village	Ten Hills			Brickbottom

Study Subarea Map



Somerville Parking and Curb Profile Key Data Summary

		Citywide	Zone 1
		Citywide	Hillside and Teele Square
Parking Supply and Demand Characteristics	**Number of On-Street Parking and Loading Spaces**	**23,551**	**2,377**
	% of Curb Used for Parking and Loading	59%	63%
	% of Parking Publically Accessible at Peak Commercial Hours	14%	6%
	% of Parking Permit Required at Peak Residential Hours	73%	87%
	% Public Parking Occupied at Peak Commercial Hours	N/A	N/A
	% Time-Limited Parking Occupied at Weekday Commercial Hours	67%	N/A
	% Residential Parking Occupied at Peak Residential Hours	67%	82%
	% Residential Parking Occupied Off-Peak	57%	N/A
	% ADA Spaces	1%	0%
Permit Usage Characteristics	**Number of Permits**	**52,243**	**5,391**
	Number of Permit Spaces	19,761	2,136
	Permits per Acre	19.8	19.2
	Permits per Household	1.6	1.4
	Ratio of Permits to Permit Spaces	2.5	2.3
	% of Cars with Permits Registered In-Zone	N/A	6%
	% of Cars with Out-of-Zone Permits	N/A	69%
	% of Cars with No Permits	33%	25%
Demographics	**% Low-Income Households**	**37%**	**47%**
	% High-Income Households	**36%**	**35%**
	Population	80,230	8,796
	% Homeowners	34%	34%
	Cars per Household	1.16	1.17
	% Zero-Car Households	24%	27%
	Housing Unit Density	12.98	14.59
Personas	Homeowner Family %	20%	20%
	Older Couple %	10%	10%
	Low Income Family %	15%	15%
	Young Professional %	15%	15%
	Student %	25%	25%
	Small Business Employee %	5%	5%
	Visitor from Greater Boston %	5%	5%
	Low Income Employee %	5%	5%

Zone 2	Zone 3	Zone 4	Zone 5	Zone 6	Special Zones		
Davis, Powder House, and Ball Squares	Porter Square, Spring Hill, Duck Village	Magoun Square, Winter Hill, Ten Hills	Union Square, Boynton Yards	East Somerville	Assembly Square	Inner Belt	Brickbottom
4,241	**4,724**	**5,255**	**3,323**	**2,668**	**362**	**291**	**310**
71%	59%	64%	56%	54%	26%	41%	35%
15%	16%	12%	15%	14%	70%	91%	14%
74%	73%	76%	72%	74%	0%	0%	0%
47%*	N/A	N/A	62%*	N/A	N/A	N/A	N/A
49%	67%	N/A	77%	N/A	N/A	N/A	N/A
65%	70%	59%	70%	61%	N/A	N/A	N/A
51%	52%	N/A	67%	N/A	N/A	N/A	N/A
1%	1%	1%	1%	1%	2%	4%	1%
8,810	**10,680**	**10,618**	**8,954**	**7,266**	**130**	**304**	**90**
3,521	4,086	4,513	2,794	2,288	39	290	94
23.4	23.4	21.6	24.7	27.7	0.8	4	0.6
1.7	1.5	1.5	1.7	2.1	0..4	0.4	2.4
2.3	2.5	2.2	3	2.7	3.3	12.2	0.4
14%	20%	13%	18%	22%	N/A	N/A	N/A
48%	51%	61%	46%	14%	N/A	N/A	N/A
38%	29%	26%	35%	65%	N/A	N/A	N/A
22%	**32%**	**43%**	**38%**	**45%**	**33%**	**76%**	**67%**
51%	**41%**	**28%**	**33%**	**27%**	**30%**	**24%**	**24%**
18,924	16,697	18,118	11,945	9,552	432	317	207
37%	33%	38%	26%	37%	4%	28%	28%
1.26	1.03	1.29	1.28	1.2	1.1	0.74	0.79
21%	27%	16%	29%	27%	10%	40%	37%
14.01	16.8	15.11	14.87	13.87	2.35	1.63	1.9
10%	15%	15%	5%	20%	5%	10%	10%
5%	5%	15%	10%	20%	5%	15%	15%
10%	15%	20%	15%	25%	5%	15%	15%
25%	20%	15%	15%	10%	30%	5%	5%
20%	20%	10%	20%	5%	5%	5%	5%
10%	10%	10%	10%	5%	5%	10%	10%
15%	10%	5%	20%	5%	40%	5%	5%
5%	5%	10%	5%	10%	5%	35%	35%

*Public parking occupancy does not account for metered parking spaces that are bagged for temporary loading zones or other uses. The true public parking occupancy in significantly higher when considering metered spaces that are removed.

KEY ISSUES AND OPPORTUNITIES

On-street curb resources are undervalued today.

- **There are far more (2.5x as many) registered residential parking permits than on-street residential parking spaces.** Union Square, Prospect Hill, Duck Village, and East Somerville have the highest ratios of permits to spaces. Parking is, on average, more difficult to find in these neighborhoods.
- **Encouraging residents to park off-street will free up a large amount of curb space for other uses.** 12% of survey respondents noted that they regularly park both on-street and off-street at home.
- **Adjusting the on-street permit price has strong potential to impact the demand for on-street resident parking.** The majority (67%) of survey respondents who have off-street parking are parking for free and would be likely to park off-street if on-street parking was more expensive. Only 7% of survey respondents pay more than $100 a month for parking.
- **Residents who have off-street parking would be less likely to purchase an on-street permit if it was more expensive.** 44% of survey respondents indicated they would be less likely to purchase a permit if it cost significantly more because of their off-street parking access.

On-street curb resources can be managed to support mode shift and climate goals.

- **Zero-parking residential developments are becoming more common.** With some exceptions, residents of new buildings within 0.5 miles of rapid transit are not eligible to get a residential parking permit per the Transit Areas designation of the Somerville Zoning Code. This supports a car-free lifestyle that will be core to Somerville's future.
- **Growing transit access in Somerville supports a shift away from parking.** 25% of Somerville households are within a half-mile of rapid transit; with the opening of the full Green Line Extension, this will increase to 67% of households. Furthermore, the Bus Network Redesign may change the radial network of existing bus service and make commuting to areas other than Downtown Boston more feasible, reducing parking demand in Somerville from inbound employees.
- **Somerville residents noted that they are more reliant on cars to run errands than they are for commuting.** Non-vehicular options for people to access commercial areas and other common appointment destinations are key. Providing this access will convince more Somerville residents to forgo car ownership entirely. Currently only 37% of Somerville residents drive alone to work, but 76% of households own vehicles. Daytime parking utilization (57%) indicates that many residents do not drive their vehicles to work every day.
- **Being able to park across Somerville is considered a valuable perk of the Somerville resident parking permit and living close to rapid transit was not a major factor in the decision to purchase a resident parking permit for survey respondents.** This means that changes to who can purchase parking permits and where they can use those permits will be useful tools to reduce overall parking demand.

- **Most businesses want more short-term customer parking.** Only 15% of on-street parking is available to the public (non-permit-holders) driving to the commercial squares, and only 3% of parking is metered.
- **Pickup, drop-off, and loading zones are desired in both commercial and residential areas to reduce instances of illegal parking and idling.** Survey respondents indicated they would like to see the impacts of delivery vehicles, trucks, and TNCs addressed especially when they impede bike-lane and sidewalk access.
- **Public meeting attendees felt that more parking and traffic enforcement is needed, particularly related to loading zones, delivery vehicles, and parking in commercial areas.** Attendees raised interest in automated enforcement or remote enforcement in these locations.
- **Few small businesses can provide off-street parking to employees – a large portion of Somerville business operators and employees rely on on-street parking.** Many employees (47%) use resident or business permits to park near their place of work. Only 27% of employees responding to the public survey indicate that they do not park at work. Making it easier for employees to use non-driving options should be a priority alongside continuing to manage the business permit program.

On-street curb resources can be allocated and designed in a way to create safer and more equitable conditions on Somerville's roadways

- **Bicycle and pedestrian safety are of high concern to residents.** Today, 11% of the curb lane right-of-way is dedicated to bicycle infrastructure, but much of this infrastructure is unprotected and adjacent to active parking or loading zones. Expanding dedicated lanes for cyclists is desired, even if it may often require removing on-street parking spaces on certain blocks. Similarly, improving sight lines around crosswalks by striping no-parking pavement markings was a key point raised during public meetings.
- **Increasing accessibility is strongly desired and identified as an equity issue in the survey responses and comments during public meetings.** Many sidewalks are not maintained, are not ADA accessible, or are often impeded by trash bins or trees on other hindrances that require persons with disabilities and residents to walk on the street. Insufficient accessible parking exists in many commercial areas.
- **If zone-based parking permits are implemented, being able to park outside their assigned zone will be critical for people with mobility impairments, including those with temporary mobility issues.** Zone-based permits can reduce vehicle miles travelled, but must consider the needs of all residents.

Rethinking the Curb

Good curb management acknowledges that we all don't have the same transportation needs. An equitable curb is more inclusive. A flexible curb can do more, but not every curb needs to do everything.

Today most curb space is allocated to accommodate cars, primarily unoccupied and stored for future use. This assumes cars are the primary mode of transportation throughout Somerville, yet just 37% of Somerville residents commute to their jobs by driving. Supporting the movement of people in the most efficient ways possible, supporting economic and social activity in this valuable space of the public realm, and supporting access for the people who need it most means allocating curb space in different ways.

Vehicle Access Curb Uses

- Parking
- Pickup/Dropoff
- Bus Stops
- Loading Zones

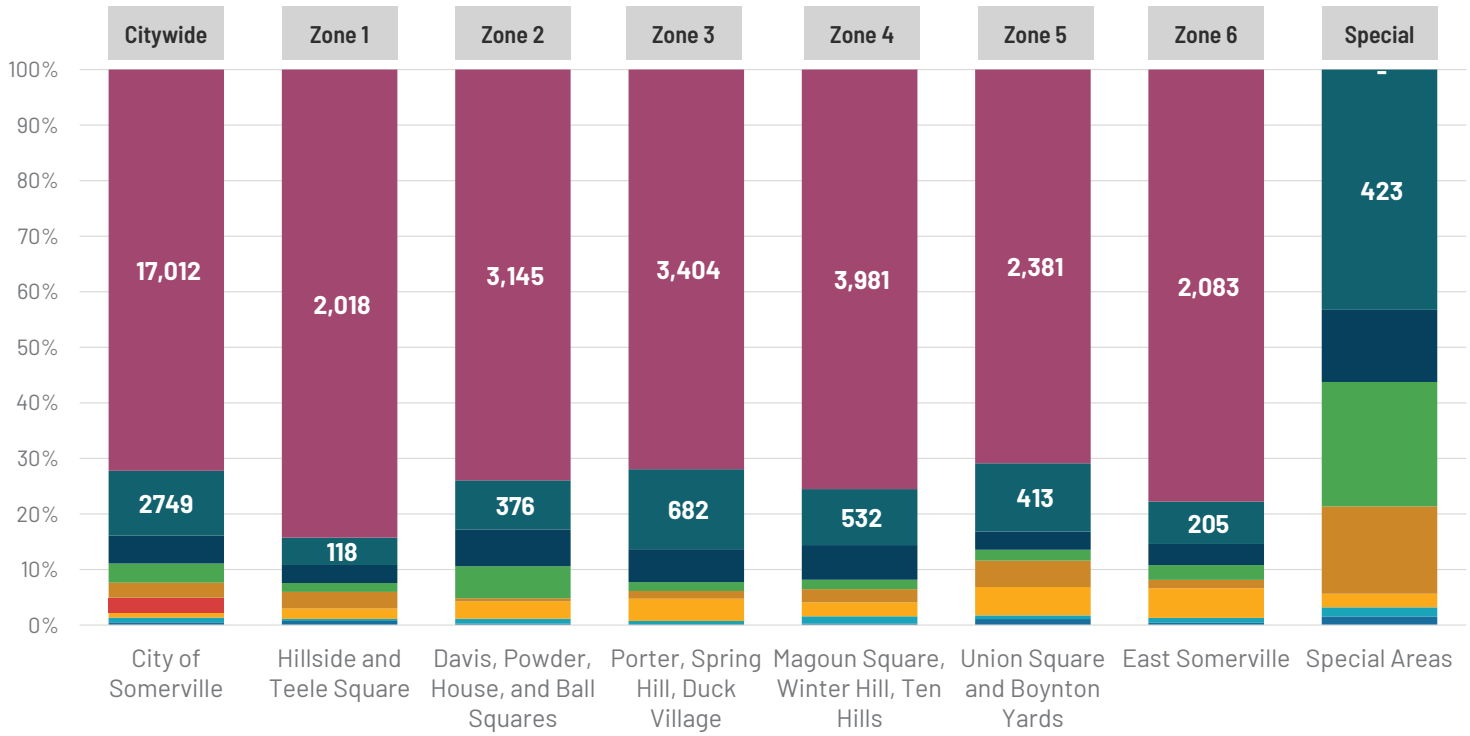
Other Uses

- Bike Lanes
- Travel Lanes
- Bus Lanes
- Crosswalks
- Parklets

Current Curb

15%	CITY ROW DEDICATED TO ON-STREET PARKING	19%	CURBSPACE TAKEN FOR DRIVEWAY ACCESS
71%	CURB ALLOCATED TO VEHICLE ACCESS	100	MILES OF PARKING AND LOADING SPACE

Parking Regulation Distribution by Subarea



Prioritization Framework

Unless a curb prioritization framework is adopted, street designs will adhere to the status quo and curb regulatory changes will be made in a reactionary or inconsistent manner. A curb typology, like a street design guide, can set up clear decision-making processes based on surrounding contexts. The curb prioritization describes how curb functions should be allocated and applied within each land use context.

Street Types

The curb zone is the interface between moving vehicles in the street, pedestrian space on the sidewalk, and the homes, offices, stores, and restaurants where residents, employees, and visitors interact every day. The land use context creates a set typical conditions and demands that need to be regulated and organized at the curb.

The City of Somerville defines two street types: Commercial/Mixed Use streets; and Residential Streets.

Curb Functions

Curb functions are the ways in which curb space, the adjacent sidewalk, and the roadway lane closest to the curb facilitate the activity of people, goods, and services. Categorizing curb demands into similar functions helps to identify the potential regulatory and programmatic approaches to help manage the variety of activity within that context. The graphics below and opposite highlight street type and context in relation to curb function and priority.

Street Type and Land Use

Street Type	Example Streets	Neighborhood Land Use and Context
Commercial/Mixed Use	Broadway Somerville Avenue	• Frequent small, medium, or large businesses • Medium to high density residential • Civic and community uses
Residential	Radcliffe Road Liberty Avenue	• Low to medium density residential • Sporadic small businesses • Low-intensity community uses

Curb Functions

Activated Space

The curb functions as an extension of public space and the sidewalk, encouraging activities, events, and interaction: parklets; extended sidewalks; plazas; food trucks; curbside dining; farmers' markets.

Storage Space

The curb functions to accommodate the short- to long-term storage of vehicles: metered parking; permit parking; accessible parking; bus layover space; in-street bike parking.

Mobility Space

The curb functions for through-movement of people and goods via motorized or non-motorized means on a variety of vehicle types: bike lanes; bus lanes; general purpose lanes.

Transportation Services

The curb functions as dedicated space to access transportation services, which are frequently the result of partnerships with private mobility service companies: car share; bike share stations; electric vehicle charging.

People and Goods

This curb functions to support pickups and drop-offs from public transit or private vehicles and loading and unloading of delivery goods: bus stops, passenger pickup, valet zones, accessible loading, commercial loading.

Green Space

The curb functions to support green space for public access and environmental services: plantings; trees, bio-swales; rain gardens.

Curb Use Priority

Curb Management Strategies

These strategies are the culmination of the efforts of the study team and are intended to directly address both current and future challenges and needs faced by all of Somerville's curb stakeholders.

Strategy Themes

Strategies documented in this report are grouped into four themes. Strategies within each theme are closely related and often linked in terms of implementation needs (e.g. a strategy to procure technology which supports another strategy on permit management). The four strategy themes are:

- **Revise the Permit Program to Meet Community Goals**
- **Strengthen Parking and Curb Administration and Operations**
- **Reallocate Curb Space to Support Community Goals**
- **Adjust Regulations to Better Manage Parking Demand**

Strategy Implementation

The Strategy Matrix displayed on the following pages shows each curb management strategy included in this study. Each strategy is grouped by its theme and integrated into a multi-year timeline. The timeline indicates strategy dependencies, those strategies that must be implemented first, in order for another to be actionable. Details for implementation of each strategy displayed below are contained in the strategy sheets on the following pages.

The Strategy Matrix also indicates how each strategy aligns with the key objectives of this study and whether they fall into low, medium, or high tiers of cost, impact, difficulty of implementation, and overall priority.

Policies Impacts Vary by Persona

Different people in and coming to Somerville get around in different ways. The way that each will respond to proposed strategies also differ, resulting in varied impacts across the city. Certain policies will be more popular or more impactful in certain neighborhoods than others, and implementation needs to take into account the expected reactions, support, and naysayers.

The eight illustrative personas represent the data we analyzed during the existing conditions assessment, future trends analysis, and the perspectives we heard from stakeholders in the public survey and meetings about the types of parking and on-street curb demand challenges facing them and the City today.

PERSONAS

We developed a set of personas to capture how diversity might affect responsiveness among Somerville residents, employees, and visitors to parking and mobility changes.

HOME END PERSONAS

Home End personas represent the variety of residents of Somerville of all ages:

- **Renters vs. homeowners**
- **Families with kids vs. people without dependents**
- **Low income vs. high income residents**
- **Car-owners with and without off-street parking spaces**

The residential permit structure and visitor parking passes matter greatly to these groups, but multimodal transportation infrastructure improvements can reduce overall parking demand.

TRIP END PERSONAS

Trip End personas represent the employees and visitors to Somerville who live elsewhere in the Greater Boston region and may arrive by public transit or a car. Office workers, small business staff, and customers may have access to off-street facilities, but are most frequently looking for on-street parking should they drive to Somerville. Employee permit structure and the location of metered, time-limited, and unregulated spaces impact these groups.

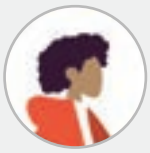
Homeowner Family

May make multiple non-commute trips a day to transport kids to school or other activities, shop, or run errands across town. Families may be more likely to own a car with easier access to off-street parking spaces, but can walk, bike, or take transit to many locations, so may be responsive to permit pricing policies. Parents may have flexible work schedules in the post-COVID environment.

Older Adults

Likely to make multiple non-commute trips during the day across the city and outside the city. While they may have more limited physical mobility to walk or cycle, safety and accessibility may influence the choice of driving and parking. Members of this group may or may not have off-street parking spaces at home.

Low Income Family



Less likely to have access to off-street parking and are reliant on on-street spaces, especially as a renter. Parents may still require a vehicle to get to jobs in non-transit accessible locations or help transport kids across the city. This group is most likely to respond favorably to more permit options and are price sensitive.

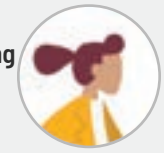
Young Professional

More likely to be single and without dependents. Young professionals are most likely to not own a car and commute by bike,the T, or walking. Often renters, they may not have access to off-street parking, making them likely to respond to permit program options and be price sensitive to meters or permits.

Student

Among the newest residents of the city. Usually renters, frequently disincentivized from re-registering a vehicle in the state, and maybe unable to access off-street parking, increased multimodal access to commercial centers is favored. With flexible schedules, members of this group are more likely to make trips throughout the day.

Small Business Employee



Often includes members traveling from outside the city from communities without easy transit access and requires parking near their workplaces. Employees may commute at non-traditional hours. Adjustments to the business permit program and metered or time-limited spaces will matter to this group.

Visitor from Greater Boston

May arrive in the city via the T, but frequently drive and search for on-street parking in the squares. Visitors may be traveling at non-commute hours. Parking availability (in the form of meters or time-limits) will impact this group, as well as passenger pickup/drop-off spaces for those getting takeout meals.

Low Income Employee

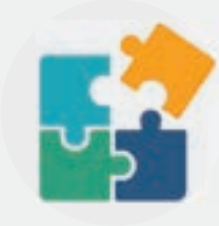
May be traveling at all hours of the day to jobs in Somerville, either on transit or in a private vehicle. Affordability and choice in on-street parking options will help members of this group decide the best travel mode on a daily basis.

Implementation

A comprehensive toolkit of strategies and solutions is needed to address the full range of parking demands. These tools need not be implemented all at once—parking policy, administration, enforcement, and planning strategies should address the challenges facing Somerville today while also providing a flexible framework that supports the needs of Somerville tomorrow. The toolkit is flexible and broad on purpose. Parking management is a "living" process which relies on consistent data and monitoring to adapt and adjust to conditions as they continue to change post-pandemic.

Parking strategies should be aligned with Somerville's sustainability goals to help make the city a more environmentally resilient community. The parking strategies will play an important role in not just managing parking activity but also encouraging walking, biking, and riding transit.

Implementation Guidelines



THERE IS NO SILVER BULLET.

No one strategy will solve Somerville's parking challenges—it will require a mutually-supportive package of solutions. Much like the rich, vibrant character of Somerville itself, success will be achieved by focusing on the whole rather than any individual part.

CHANGE IS DIFFICULT, BUT NECESSARY.

This report offers bold and innovative approaches. Somerville's systemic curb issues will only be solved by going beyond the status quo.

IMPLEMENTATION WILL TAKE TIME.

Implementation of every strategy will not, and should not, happen right away or all at once. Some will take additional time to plan, design, or finance.

IMPLEMENTATION MUST BE CALIBRATED.

Somerville must use data to inform when and where to implement key strategies, balancing a variety of parking, mobility, and economic metrics.

The Citywide On-Street Parking and Curb Management Study is the culmination of more than a year of effort. It is not the end of the process, but the beginning of the implementation phase. Somerville employers, employees, residents, visitors, and stakeholders want definitive action that drives the city forward. The City Council and City staff are ready to implement.

To that end, this document provides a roadmap for implementation, even as the COVID-19 pandemic creates uncertainty for long-term trends and complication for implementations. Monitoring and flexibility are essential to implementation success. The plan that follows summarizes the general timeline and sequence of the recommended strategies, without being overly proscriptive. Key milestones and dependencies are identified to ensure both short-term action and long-term success.

IMMEDIATE IMPROVEMENT IS NEEDED—AND POSSIBLE.

Somerville has challenges today. Certain "quick wins" should be advanced to secure tangible progress and build support for future work.

COMMUNICATION IS VITAL.

Ongoing dialogue with the community about curb policy rationale, benefits to Somerville stakeholders, and its practical details will be crucial to securing stakeholder buy-in.

IMPLEMENTATION REQUIRES PARTNERSHIP.

No one person, organization, or city agency can solve it all. City staff and stakeholders must leverage each other to overcome systemic problems.

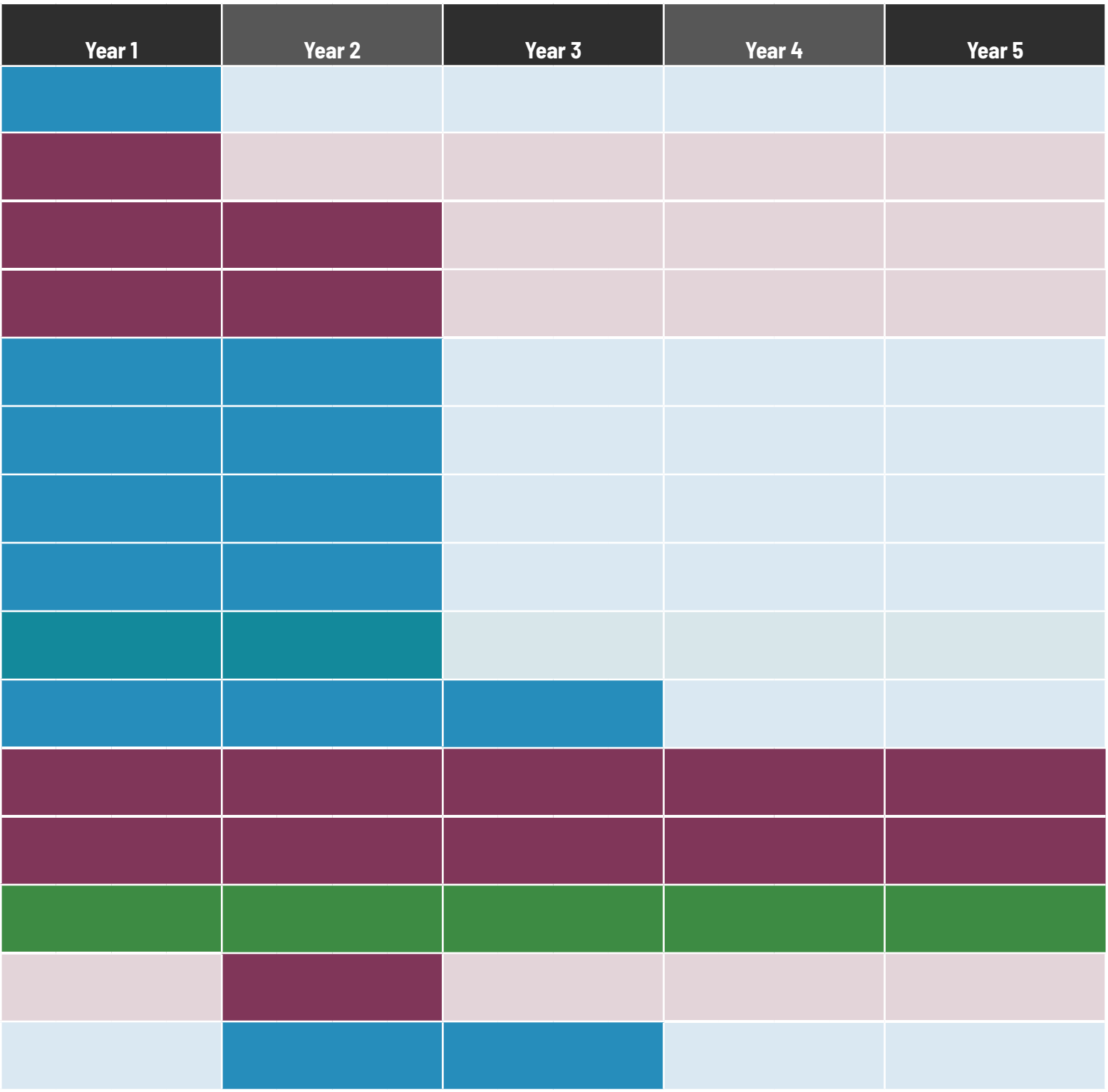
IMPLEMENTATION IS A "LIVING" PROCESS.

This report provides a framework for moving forward. It is based on analysis and best practices, but no plan gets it all right the first time. Somerville must be flexible and continually evaluate its performance through a "test and learn" approach.

STRATEGY MATRIX

Strategy Number and Name		Priority	Prerequisite Strategy
A1	Clarify curb management roles.	High	—
C1	Implement a Curb Prioritization Framework to prioritize curb access for the users with the greatest need.	High	—
C3	Ensure adequate access for commercial and passenger loading activities in key districts.	High	A1, C1
C7	Ensure adequate access for customers of local businesses.	High	A1, C1
A2	Continue to expand loading zones and improve loading zone request procedure.	Medium	A1, A4, C1
A3	Formalize and streamline parklet request and permitting process and expand the number of shared spaces.	Medium	A1, A4, C1
A4	Formalize and improve communications processes, including website.	High	A1, A6
A11	Implement design standards to reduce modal conflicts and integrate curb needs into all roadway redesigns.	High	A1, C1
B7	Ensure adequate access for employees of local businesses, including by revising the Business Visitor Permit Pass.	Low	A1, A6
A6	Enhance enforcement protocols and add staff capacity.	High	A1
C2	Expand multimodal (bus and bike) infrastructure.	High	A1, C1
C6	Increase accessible parking in all neighborhoods in Somerville.	High	A1, A6
D5	Seek shared parking opportunities, particularly during new development.	Medium	A1
C4	Enhance wayfinding to public parking facilities.	Medium	A1, A6
A7	Procure management and enforcement technology.	High	A1, A6

A Operations and Administration B Revise the Permit Program C Reallocate Curb Space



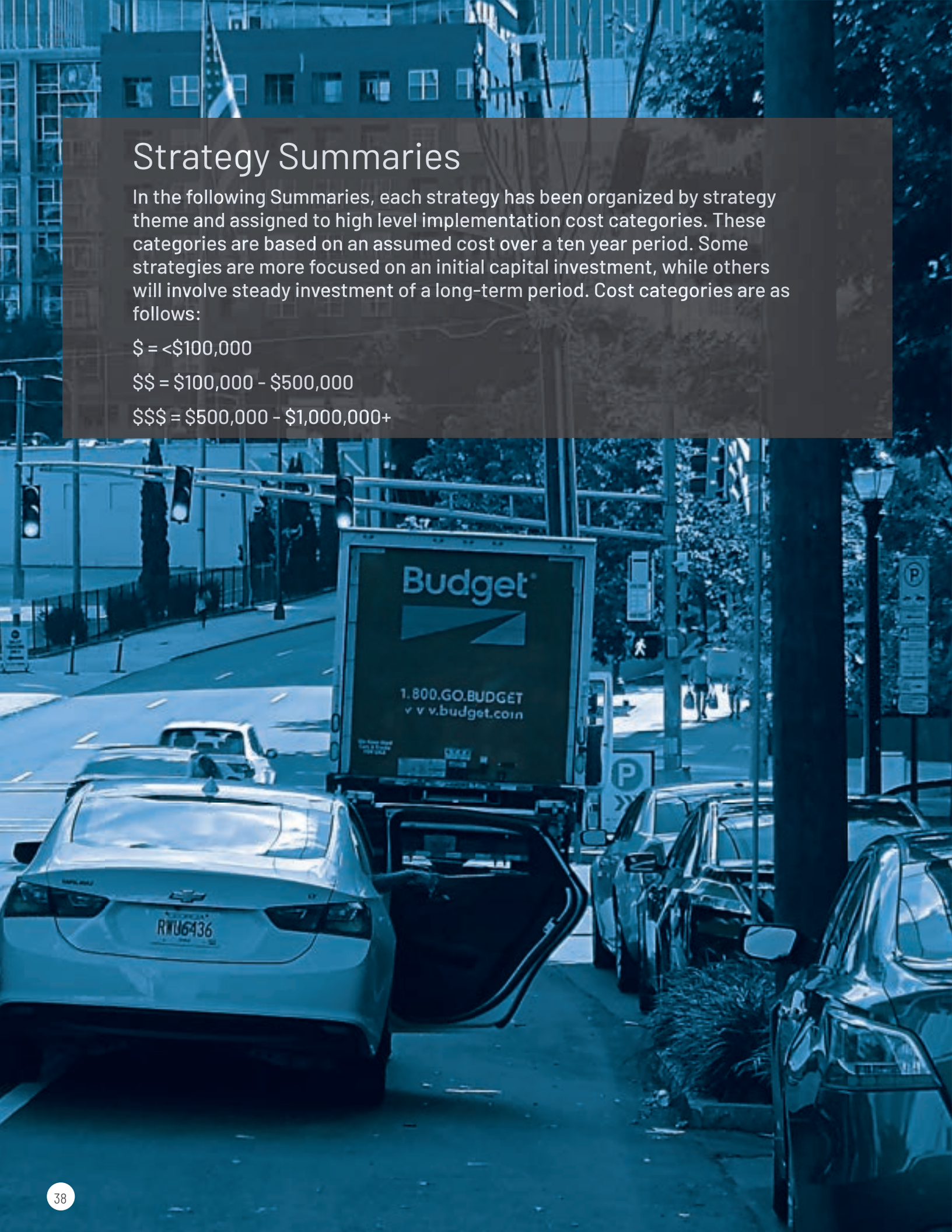
D Adjust Regulations to Manage Demand

Strategy Matrix *(continued)*

Strategy Number and Name		Priority	Prerequisite Strategy
A8	Implement a virtual permitting system to enable advanced parking management.	High	A1, A6, A7
B1	Increase the on-street parking permit price.	Low	A1, A6
D4	Require unbundling off-street parking spaces.	Medium	A1
A5	Complete and refine digitization and data strategy.	High	A1, A6
A10	Pilot automated enforcement technologies.	High	A1, A6
A12	Collaborate with ride-hail vendors to manage demand and operations.	High	A1, A6
B2	Implement graduated permit pricing for on-street permits and cap the number of available permits per household.	Low	A1, A6, A7
B3	Charge a higher permit price for people with off-street access.	Low	A1, A6, A7
B4	Place a cap on permits by zone.	Low	A1, A6, A7, A8, A10
B6	Tie the permit cost to income level.	Low	A1, A6, A7
D1	Implement flexible curbside regulations.	Medium	A1, C1, A6, A10, A5
D2	Add meters to the most popular two-hour spaces to encourage turnover.	Medium	A1, C1
D3	Set meter and other curb pricing based on demand.	Medium	A1, C1, A6, A5
B5	Enforce permits based on zones and reassess geography.	Low	A1, A6, A7, A8, A10
C5	Add off-street and on-street electric vehicle charging stations to meet growing demand.	Medium	A1, C1, A6
A9	Revise the visitor permit program for LPR-based enforcement with a daily, graduated rate.	Low	A1, A6, A7, A8, A10

A Operations and Administration B Revise the Permit Program C Reallocate Curb Space

D Adjust Regulations to Manage Demand



Strategy Summaries

In the following Summaries, each strategy has been organized by strategy theme and assigned to high level implementation cost categories. These categories are based on an assumed cost over a ten year period. Some strategies are more focused on an initial capital investment, while others will involve steady investment of a long-term period. Cost categories are as follows:

$ = <$100,000

$$ = $100,000 - $500,000

$$$ = $500,000 - $1,000,000+

STRENGTHEN PARKING AND CURB ADMINISTRATION AND OPERATIONS

Somerville's curb management needs and the proposed reforms to permit programs and other policies demand a higher level of administration, meaning additional staff time, technology, and resources. Parking management and enforcement technology can help City of Somerville staff operate more efficiently and with more versatility.

Increasing the enforcement capabilities of Somerville's Parking Department will make all proposed strategies in this document more effective. Increasing compliance through consistent enforcement will ensure that the values of curb equity can be achieved, giving users with priority needs the curb access that they require.

A1 Clarify curb management roles.

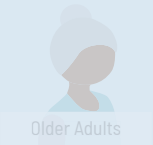
Priority	●●●	Cost	$$$
Potential Parking Demand Impact	–	Potential Parking Supply Impact	–
Related to Permit Program?	No	Related Strategies	–

Implementation Timeframe

Year 1	Year 2	Year 3	Year 4	Year 5
■	■			

Personas Affected


Homeowner Family


Older Adults


Low Income Family


Young Professional

Student


Small Business Professional


Visitor from Greater Boston


Low Income Employee

Strategy Description

The City of Somerville should identify a specific position to spearhead curb policies and projects from the planning perspective. This position would sit within the Parking Department and coordinate with planners in OSPCD, serving as an internal champion for the strategies developed in this study, leading the management and collection of curb data, and continuing to stay informed on emerging curb issues.

Challenge Strategy is Solving

Somerville's parking and curb system is currently managed by numerous City staff across multiple departments, including the Parking Department and the Mobility Division of the Office of Strategic Planning and Community Development, making it challenging to efficiently respond to residential and business needs as curb demands continue to grow. The City does not currently designate a single owner for curb issues. Staff dedicated to residential permit management, metered parking management, multimodal infrastructure expansion, and signage are in place, but no singular curb-focused leader is assigned to coordinate decision-making at a citywide scale. Clear leadership on curb issues is necessary to execute all other strategies outlined in this study. The Parking Department team manages most areas of curb operations, given the 90% of curbs dedicated to residential parking. Their work includes permit administration and enforcement, but staff must engage in external coordination with OSPCD when considering future plans and policies or when managing data.

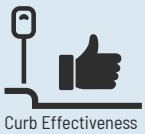
Strategy Action Steps

1. Establish consistent and curb-focused communication and cooperation between the Mobility Division, Parking Department, Department of Public Works, Traffic Commission, and other community stakeholders included in the Task Force to monitor parking needs in different Somerville neighborhoods.
2. Develop a curb management organizational chart and decision-making process diagram that outlines who is involved in curb change requests, data collection, evaluation, and implementation. Identify a position in the Parking Department that will take the lead on curb management issues in close cooperation with OSPCD.
3. Assess training needs across departments and divisions for individuals in newly defined roles and new hires to the City.
4. Continue to evaluate the level of staff support and/or contract services needed to implement curb strategies, including enforcement of a reformed residential permit parking program.

Implementation Considerations

Initially, the curb management champion would likely be a Parking Department staffer with other duties beyond curb planning. As the City's curb management initiatives grow, the City could consider hiring or designating a full-time position that would focus entirely on curb planning, continuing to coordinate with OSPCD for long-range transportation planning.

Objectives Met


Curb Effectiveness


Pick-Up / Drop-Off


Commercial Loading


Local Business


Space Making


Reduce Drive-Alone


Bike Expansion


Transit Performance


Accessibility


Equity


Transparency

A1 Clarify curb management roles.

Continued

Case Study

The Seattle Department of Transportation (SDOT) maintains a specific unit called the Curbside Management Team. The Curbside Management Team has jurisdiction over the entire curb regardless of its designation. They have responsibility for planning, managing, operating, and maintaining the city's curb space (including parking) to help achieve a number of mobility, access and sustainability goals for the city. They fall under the Transit and Mobility Division at SDOT and the team is divided into three groups.

The first group is responsible for policy, planning, and programs. This group works with other teams at SDOT to ensure coordination on transit and mobility capital projects. They manage the performance parking program including deciding on payment methods, and they oversee the restricted parking zone program, commercial vehicle permitting, and carshare. Their final responsibility is in communicating with the various neighborhood stakeholders to improve access and create common understanding.

The next group oversees curb space operations. The operations group decides where and when to manage the curb for disabled access, commercial loading, shuttle zones, passenger pick up and drops offs and other various curb zones. They design the street signs and provide customer service, responding to requests for sign replacements and changes. They review development proposals ensuring the curb use and access demands of new development are achievable. Finally, they write work orders instructing the third group, known as the Parking Shop, what work needs to be done at the street/curb level.

The Parking Shop maintains and programs the pay stations, and they install and remove infrastructure (pay stations and signs) as needed. They also install and remove temporary use designations. Finally, they also have a public facing function in that they provide customer service support for paid parking inquiries.

The team has a well-articulated purpose: to "... manage the city's finite amount of curb space to provide reliable access for people who live, work, and play in Seattle." They have a clear statement of what is considered in decision-making: they "... consider various and often competing demands for the curb, whether from transit riders, business owners, drivers, residents, shared vehicles, ride hail, those making deliveries, or others." Their decisions are data-driven and comport with SDOT's broader goals for mobility, sustainability, safety, equity, livability, and excellence.

The team is tasked to produce SDOT's Curbside Management Policy Report; The Paid Parking Study Report and the Curbside Management Team Annual report. Information about the Team's accomplishments can be found in the Annual Report.

A2 Continue to expand loading zones and improve loading zone request procedure.

Priority	●●●	Cost	$$$
Potential Parking Demand Impact	–	Potential Parking Supply Impact	–
Related to Permit Program?	No	Related Strategies	A1, A4, C1

Implementation Timeframe

Year 1	Year 2	Year 3	Year 4	Year 5
■	■			

Strategy Description

The City of Somerville adds new loading zones on an ad hoc basis, typically through loading zone requests made by specific businesses. These requests are handled by the Parking Department and the Traffic Commission. A large number of short-term parking and loading zones were also added in commercial squares in 2020 during the COVID-19 pandemic. The City should continue to operate this program and reach out directly to business owners and operators through the Economic Development department to share information on loading zone needs and procedures.

Challenge Strategy is Solving

Not all businesses that generate loading activity may be aware that they could benefit from a loading zone, or that loading activity generated by their business could be detrimental to street operations without putting the proper accommodations in place. Outreach to small businesses is key to spreading awareness of the value of loading zones.

Implementation Considerations

Businesses operated by non-native English speakers may have less awareness of the importance of loading zones due to a lack of information available in their native language. Outreach directly to these businesses on the importance of loading zones is key - inadequate loading and curb access for these business operators is an equity issue that should be addressed.

Strategy Action Steps

1. Continue to operate the loading zone request program and ensure that loading zone request forms and procedures are easily found on the City's website and in other materials.
2. Reach out directly to businesses through the Economic Development department in areas where loading zones are absent to ensure that businesses have their loading zone needs met.

Personas Affected

- Homeowner Family
- Older Adults
- Low Income Family
- Young Professional
- Student
- Small Business Professional
- Visitor from Greater Boston
- Low Income Employee

Objectives Met

- Curb Effectiveness
- Pick-Up / Drop-Off
- Commercial Loading
- Local Business
- Space Making
- Reduce Drive-Alone
- Bike Expansion
- Transit Performance
- Accessibility
- Equity
- Transparency

A3 Formalize and streamline parklet request and permitting process and expand the number of shared spaces.

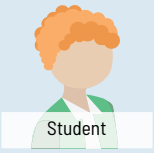
Personas Affected


Homeowner Family


Older Adults


Low Income Family


Young Professional


Student


Small Business Professional


Visitor from Greater Boston


Low Income Employee

Priority	●●●	Cost	$$$
Potential Parking Demand Impact	–	Potential Parking Supply Impact	–
Related to Permit Program?	No	Related Strategies	A1, A4, C1

Implementation Timeframe

Year 1	Year 2	Year 3	Year 4	Year 5
■	■			

Strategy Description

Parklets promote pedestrian activity, support local businesses, and provide healthy spaces during public health crises. The City should streamline the parklet request and approval process to ensure that businesses are able to quickly adapt to changing conditions and request the outdoor spaces that they need.

Challenge Strategy is Solving

Streets are the single largest component of the public realm in Somerville. Leveraging streets for purposes other than mobility and access can unlock space for people and ensure that Somerville residents and businesses are healthy.

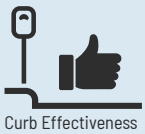
Strategy Action Steps

1. Continue to promote and refine standards for outdoor structures that can be used as a template for the implementation of new parklets and outdoor dining areas.
2. Make parklet request forms easily accessible online and in other City materials. Reach out directly to businesses who may need parklets through the Economic Development department.
3. Study the feasibility of creating larger-scale "shared spaces" on streets with large numbers of parklets, pedestrians, and businesses.

Implementation Considerations

Parklet demand may be seasonal in nature - standards and design guidelines for parklets should promote easy construction and teardown to support these seasonal patterns.

Objectives Met


Curb Effectiveness

Pick-Up / Drop-Off

Commercial Loading


Local Business


Space Making

Reduce Drive-Alone

Bike Expansion

Transit Performance


Accessibility


Equity


Transparency

A4 Formalize and improve communications processes, including website.

Priority	●●●	Cost	$$$
Potential Parking Demand Impact	–	Potential Parking Supply Impact	–
Related to Permit Program?	Yes	Related Strategies	A1, A6

Implementation Timeframe

Year 1	Year 2	Year 3	Year 4	Year 5
■	■			

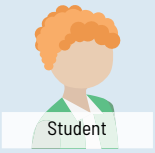
Personas Affected


Homeowner Family


Older Adults


Low Income Family


Young Professional


Student


Small Business Professional


Visitor from Greater Boston


Low Income Employee

Strategy Description

Develop a unified parking brand and information clearinghouse for city parking programs, facilities, and application processes. Roll out a diverse marketing and communications campaign as new management strategies are implemented.

Challenge Strategy is Solving

A robust and responsive parking and curb management system requires regular and ongoing outreach regarding new policies, parking rates, payment technologies, and permit programs. Digital tools, including web pages and apps, can make it easier, more effective, and more user-friendly to share information and promote parking and transportation options. Ensuring that key information and forms are easily accessible to stakeholders through web-based and other platforms will improve street operations throughout the city.

Strategy Action Steps

1. Refresh public parking information on City website and collateral, prioritizing dynamic maps and program information by parking facility and block.
2. Create a dedicated website for citywide parking programs, resources, and initiatives. As the City invests in web-based permit management systems, they should be incorporated into the unified brand and online portal.
3. Develop communication protocols (e.g. City contact, press release guidelines, press requests, constituent inquiries/complaints, etc.) Continue to engage key stakeholders during the implementation process.
4. Share data and increase public transparency with annual reporting to demonstrate the impact and benefits of key investments and programs.
5. Each policy change for downtown parking should be accompanied by:
   - A press release explaining in easily understood language the goals of the change and its specific implementation.
   - A point of contact for stakeholders to reach out to directly with questions and concerns.

Implementation Considerations

Building consensus around specific policy changes can be time consuming and future staff time must be consistently set aside for ongoing communication regarding curb change(s) via regular outreach to the public and stakeholder groups such as the Task Force, Constituent Services, and others. Implementing the communications protocols described here will require net new staff for the Parking Department.

Larger policy changes and developments should be accompanied by public workshops to refine and communicate the parking strategies.

Provide publicly-accessible parking availability data in a format that ensures it can be integrated into third-party maps, apps, and other services.

Objectives Met

Curb Effectiveness

Pick-Up / Drop-Off

Commercial Loading

Local Business

Space Making

Reduce Drive-Alone

Bike Expansion

Transit Performance

Accessibility

Equity


Transparency

A5 Complete and refine digitization and data strategy.

Priority	●●●	Cost	$$$
Potential Parking Demand Impact	–	Potential Parking Supply Impact	–
Related to Permit Program?	Yes	Related Strategies	A1, A6

Implementation Timeframe

Year 1	Year 2	Year 3	Year 4	Year 5
■	■	■		

Personas Affected

- Homeowner Family
- Older Adults
- Low Income Family
- Young Professional
- Student
- Small Business Professional
- Visitor from Greater Boston
- Low Income Employee

Objectives Met

- Curb Effectiveness
- Pick-Up / Drop-Off
- Commercial Loading
- Local Business
- Space Making
- Reduce Drive-Alone
- Bike Expansion
- Transit Performance
- Accessibility
- Equity
- Transparency

Strategy Description

To create/develop a Performance Based Parking system, there must be measurable Key Performance Indicators (KPIs) available to monitor, review, and actively manage the systems and processes in place. To be most effective, the KPIs must be aligned with the City's core objectives (e.g., reduced carbon emissions, increased transit ridership, etc.) and allow the parking management to monitor progress towards a desired objective (i.e., reducing congestion/space hunting and achieving 10-20% availability of space in each zone at any given time). Somerville should continue to invest in technologies that develop performance-oriented data such as parking occupancy, permit utilization, violation hotspots, etc. to better gage the efficiencies and inefficiencies of the systems and processes in place.

Typical parking enforcement duties in many municipalities have evolved away from the focus on simple citation issuance to encompass other duties including customer service, data gathering, wayfinding, as well as many other curb and pedestrian oriented tasks specific to each parking operation. Somerville still uses parking enforcement staff in a traditional, limited role. This consistent data gathering is at the core of a performance-based, actively managed system that evolves from current practice. Future programs will revolve around:

- **Data gathering schedules:** Somerville will need to refine and phase in adaptable patrol schedules based on new permit systems and geographic zones. Several cities are combining data collection for other purposes (e.g., infrastructure audits, pavement condition assessments, pedestrian and traffic counts, temperature, etc.).
- **Data analysis:** The city needs to align data collection goals, KPIs, and policies related to privacy, use of data, and data disposition.
- **Dynamic operations:** Based on data feeds, the city can establish operational models. In the beginning, a periodic review and regular adjustments is appropriate. Over time, cities are using data to build predictive models to determine ahead of time when parking-related disruptions to mobility systems are likely to occur. This helps build an "asset light" system using software instead of hardware. Similarly, the city can build digital twins that lets the city manipulate and evaluate policy and pricing changes prior to making changes.
- **Communications:** As new businesses and residents make relocation decisions, information on the parking system is essential. Residents need to have realistic information on the cost of permits and ease or difficulty of finding parking. Businesses need comprehensive information on TDM measures for employees, visitors, and services.

Challenge Strategy is Solving

Currently parking enforcement staff in Somerville patrol on foot or in their personal vehicles reconciling payments from meters/kiosks or mobile payment with vehicles parked, as well as visually confirming the presence/absence of a Permit/decal affixed to vehicles, and/or identifying vehicles not following other

A5 Complete and refine digitization and data strategy.

Continued

parking and traffic laws. Vehicles identified in violation are issued a parking citation. Currently enforcement staff do not count, aggregate, or store the number of permits parked on each block during the course of their patrols. Additionally, permit and parking payment data (either through the mobile application or the physical kiosks) and the commensurate data developed from enforcement of the payment rules, is similarly not aggregated or used to populate individual parking occupancies by block or gain a more thorough understanding of how the parking system is performing. Operational data that has been gathered has been historically analogue or from observational insights from staff. The lack of a comprehensive data strategy means that decision-makers have less to go on when making policy decisions, and performance of policy changes is difficult to track.

Strategy Action Steps

1. **Establish clear performance metrics that align with broader citywide goals.** Performance targets may include the following categories and measures:
   - **Safety:** Decrease in the number of crashes, incidents, and complaints involving bicyclists, pedestrians, and transit users at the curb in support of a Vision Zero program.
   - **Multimodality and Flexibility:** Increase in the number of trips involving non-driving modes (e.g., walking, biking, transit) along key commercial corridors.
   - **Compliance:** Decrease in the number of curbside violations.
   - **Parking Utilization:** On-street parking utilization of 70 to 85% is maintained throughout the day.
   - **Turnover and dwell time:** Dwell times in pickup/drop-off, valet, or short-term loading areas do not exceed five minutes.
   - **People activity and number of people accommodated:** Total person-capacity of civic spaces and total foot traffic on key commercial corridors.
   - Curb-related congestion: Decrease in incidences of double parking and/or loading in improper zones.
2. **Realign the objective of enforcement personnel to include data collection.** Procure new technology to allow easier tracking of permit data (see Strategy A7 and A8).
3. **Continue to update and maintain curb inventory data in the Coord platform (or future curb data platform if the Coord platform is no longer used).**
4. **Integrate curb utilization data directly into the Coord (or other) curb data platform by intaking data from permit management platform and/or metered parking management platform.**

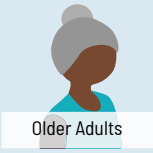
Implementation Considerations

Integrating curb data into one comprehensive curb data platform will make policy changes much easier to assess. Whether the City retains a relationship with Coord or switches to another curb data platform, updating, maintaining, and integrating future data streams into that platform is key. Procurement of additional technology (Strategy A7) and enforcement staff (Strategy A6) will be key to developing and maintaining curb data.

A6 Enhance enforcement protocols and add staff capacity.

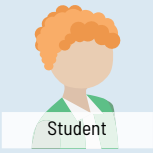
Personas Affected


Homeowner Family


Older Adults


Low Income Family


Young Professional


Student


Small Business Professional


Visitor from Greater Boston


Low Income Employee

Priority	●●●	Cost	$$$
Potential Parking Demand Impact	–	Potential Parking Supply Impact	–
Related to Permit Program?	Yes	Related Strategies	A1

Implementation Timeframe

Year 1	Year 2	Year 3	Year 4	Year 5

Strategy Description

Current processes and staffing levels for parking enforcement in Somerville are a reflection of the budgetary constraints and labor expense historically allocated to the parking department. Current processes appear to have evolved through necessity. With constrained enforcement labor and a predefined geographic area of coverage required to be patrolled daily, expediency appears to have been a driver of process development. With a parking system managing in excess of 20,000 on-street spaces and the associated linear feet of curb, both in commercial and residential districts, higher staffing levels providing more regular patrols at all times of day are necessary. The allocation of labor to parking should reflect the City's priorities towards safety and active curb management. The current parking enforcement function, process, and staff have been an invaluable tool in managing parking in Somerville. Scaling staffing and processes to suit new technologies and expectations for enforcement roles will equip the parking department manage the invaluable public resource of parking and curb-space now and into the future.

Challenge Strategy is Solving

As mentioned in Strategy B5, parking enforcement staff in Somerville are primarily tasked with identifying parking violators and issuing parking citations. Historically in parking this approach to parking enforcement is effective in curbing abuse and establishing consequences for abuse of the parking system. As parking technologies have continued to advance, so too has the role of parking enforcement in municipalities. With increased and enhanced data from new technologies, the parking enforcement role can be modulated to include not only issuing violations, but mobile data collection, customer service, traffic direction as well as many other varied location and city-specific duties. This will allow decision-makers to develop new curb policies with greater confidence. Increasing overall staffing for parking enforcement will also improve compliance and make all parking and curb strategies implemented by the City more effective.

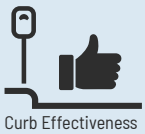
Strategy Action Steps

1. Realign the mission of enforcement staff to include data collection duties.
2. Renegotiate labor contracts to ensure that enforcement personnel roles can achieve new curb management objectives.
3. Hire additional staff to support improved enforcement and data collection and equip staff with improved technology (see Strategy A7).

Implementation Considerations

With the implementation of new technologies an opportunity exists to negotiate a change in the parking enforcement provisions, roles, and processes. The efficiencies new technologies bring are designed to reduce historically tedious, manual, difficult, and/or inefficient tasks and processes with automation. Changes to processes and responsibilities are currently not easily accomplished due to job duties and functions specified in

Objectives Met


Curb Effectiveness

Pick-Up / Drop-Off


Commercial Loading

Local Business

Space Making

Reduce Drive-Alone


Bike Expansion


Transit Performance


Accessibility

Equity


Transparency

A6 Enhance enforcement protocols and add staff capacity.

Continued

a negotiated labor contract. To adopt these new technologies, the parking enforcement staff roles, responsibilities, and processes should include enough flexibility to adapt staffing volumes and position roles to changes resulting from new technologies in addition to the dynamically changing environment of Somerville.

Implementation of this strategy is dependent on the timeline for a new labor contract and will require collective bargaining to change job descriptions. In addition to new enforcement staff and roles, additional clerks, officers, and maintenance staff will be needed to support expanded operations.

Resources

https://hoodline.com/2021/03/sfmta-to-permanently-replace-residential-parking-stickers-with-virtual-permits-license-plate-recognition-technology/

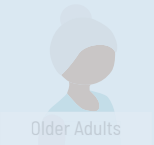
https://www.govtech.com/fs/automation/alameda-calif-to-use-plate-readers-for-parking-enforcement.html

https://www.police1.com/police-products/training/parking-enforcement-technology/articles/how-to-simplify-parking-enforcement-with-digital-permitting-UFCYdk4baY1qxdrJ/

A7 Procure management and enforcement technology.

Personas Affected


Homeowner Family


Older Adults


Low Income Family


Young Professional

Student


Small Business Professional


Visitor from Greater Boston


Low Income Employee

Priority	●●●	Cost	$$$
Potential Parking Demand Impact	–	Potential Parking Supply Impact	–
Related to Permit Program?	Yes	Related Strategies	A1, A6

Implementation Timeframe

Year 1	Year 2	Year 3	Year 4	Year 5
	■	■		

Strategy Description

Use LPR to track parking payments, permits, and identify parking violations - LPR systems will utilize cameras to capture license plate data from vehicles parked, and catalogue the plate data for comparison with payment and permit plate lists to identify vehicles violating parking regulations.

Use vehicle-mounted LPR to track utilization. (Replace manual counts once procured.) - Vehicles mounted LPR systems used in collaboration with a permit management system can aggregate catalogued plate data to count parking occupancy and utilization.

Use for virtual permit program. - Virtual permit systems use license plate information to create a list of authorized vehicles. During enforcement patrols observed plates are reconciled with the list of authorized parkers from permits and/or payments to define violators.

Challenge Strategy is Solving

Advanced parking payment and management technologies will help ensure that Somerville's parkers experience the most convenient and accessible parking system possible, from requesting and receiving any permits handling parking violations.

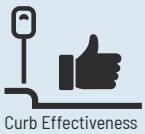
Virtual permit systems are easy to track and manage, especially for specialty types of permits. - Virtual permits will alleviate a significant administrative and enforcement burden the parking department currently absorbs using the decal system. A virtual permit system will provide enhanced data to the City including but not limited to parking occupancy and utilization.

In-field utilization counts may no longer be necessary as enforcement and permit management technology automatically tracks data gathered in the field, correlates gathered data with location data, and reconciles the gathered data with permit and/or payment lists of authorized plates.

Strategy Action Steps

1. **The technologies, systems, and processes in use by parking have served their functions well to date.** Continued advances and updates in parking technologies, operating processes, hardware, and software can now provide improvements in efficiency, features, and functionality that could benefit the parking operation in Somerville. The update process should begin with a Technology Visioning Exercise whereby parking/city staff discuss, define, and prioritize the desired system augmentations, process improvements, features, functionalities, and efficiencies. From this list, technology solutions could be identified to pilot and/or implement. A value analysis should be performed to estimate installation and residual costs of the desired hardware/systems, as well identification of operational efficiencies, enhancements, and/or savings that might be achieved.

Objectives Met


Curb Effectiveness

Pick-Up / Drop-Off

Commercial Loading

Local Business

Space Making

Reduce Drive-Alone

Bike Expansion

Transit Performance

Accessibility


Equity


Transparency

A7 Procure management and enforcement technology.

Continued

2. Some examples of improved parking management and enforcement technologies that could benefit parking would be:

- License Plate Recognition (LPR) Camera (fixed/mobile) Systems and Software
- LPR Camera-Equipped Enforcement Vehicle(s)
- Updated Parking Enforcement Systems
- Parking Permit Management Software
- Smart Camera Systems and Software
- Predictive Analytics Software
- Smart Kiosks
- Variable Message Wayfinding/Directional/ Availability Signs

Implementation Considerations

LPR systems used in conjunction with parking enforcement, virtual permit, and pay by plate systems will automate the collection and reconciliation of data to enforce parking. This automated approach to parking enforcement can generate production efficiencies for patrol units whereby individual patrols are able to patrol more areas in less time. The automation can also eliminate or simplify some previously manual tasks that will save time.

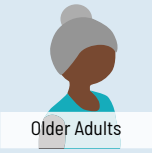
While the initial expense to implement LPR is a barrier, the long-term benefits and efficiencies of this technology support the investment cost. The use of LPR systems can also provide security benefits when interfacing with police and DMV databases. Public reaction to LPR systems can sometimes focus on privacy concerns relative to the tracking of license plate numbers. It is important to note that the license plate numbers of vehicle exist in the public realm and are visibly displayed on private vehicles at all times. Parking permit management and enforcement systems can include or integrate with automatic redaction processes or software to automatically tokenize/anonymize stored license plate data for vehicles not in violation. There may be some sacrifices on other types of data when using the auto-redaction processes/software. Violation tag data is stored/saved to allow for collections of fees and establishment of vehicle histories.

Implementation of LPR technology will require a shift from enforcement staff now using personal vehicles to a new fleet of City vehicles equipped with the required technology, and/or the use of handheld LPR devices that would require officers to conduct sweeps solely on foot.

A8 Implement a virtual permitting system to enable advanced parking management.

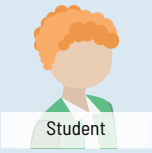
Personas Affected


Homeowner Family


Older Adults


Low Income Family


Young Professional


Student


Small Business Professional


Visitor from Greater Boston


Low Income Employee

Priority	●●●	Cost	$$$
Potential Parking Demand Impact	–	Potential Parking Supply Impact	–
Related to Permit Program?	Yes	Related Strategies	A1, A6, A7

Implementation Timeframe

Year 1	Year 2	Year 3	Year 4	Year 5

Strategy Description

Virtual permitting is the registration and use of a vehicle's license plate number for authentication in a permitting system. This virtual permitting process typically requires customers to register and provide the license plate number of their vehicle(s) (multiple plates are allowed), and gives customers access to an online portal where they can pay for the permit, renew their permit, and self-administrate over their account in general. This change in process will alleviate a large administrative burden for the parking department.

Challenge Strategy is Solving

LPR technology allows parking enforcement to take place more efficiently because permits can be enforced easily with license plates rather than stickers using a virtual permit system. Permit management can become streamlined. On-street spaces and lots using the pay-by-plate system can also be monitored using the technology. Virtual permitting can also provide enhanced data and system efficiencies to the City. Using License Plate Recognition (LPR) cameras for parking enforcement, cameras will identify, authenticate, and track each permit user/transient parker. This process can increase the efficiency and productivity of parking enforcement in identifying vehicles in violation. Most parking systems implementing virtual permitting have experienced an increase in compliance and decrease in violations issued, arguably due to the perception that the enforcement is automated as opposed to manual.

The captured data can also be aggregated to generate occupancy and utilization analytics for the system. This occupancy and utilization data will provide measurable Key Performance Indicators (KPIs) that will allow for continued modification and adjustment to the parking system.

Strategy Action Steps

1. Determine key performance indicators and objectives for a virtual permitting system.
2. Ensure that enforcement staff labor contracts are compatible with the needs of a virtual permitting system. Enforcement staff may not be able to drive their own personal vehicles when using virtual permitting technology - staff will need to either use City-owned and managed vehicles or conduct routes by walking.
3. Develop and execute an RFP process to virtual permitting technology procurement.

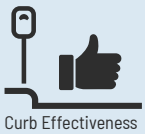
Implementation Considerations

Somerville's existing parking enforcement staff typically make use of personal vehicles to conduct their routes. Using virtual permitting will require staff to either use City-owned vehicles or to walk their routes using handheld devices.

Case Study

The SFMTA announced that San Francisco will shift to a virtual permit and license plate recognition system as of 2022 in order to streamline the permit application and administration process. The SFMTA plans to expand LPR technology to all permit areas.

Objectives Met


Curb Effectiveness

Pick-Up / Drop-Off

Commercial Loading

Local Business

Space Making

Reduce Drive-Alone

Bike Expansion

Transit Performance

Accessibility

Equity


Transparency

A8 Implement a virtual permitting system to enable advanced parking management.

Continued

Non-resident and specialty permit types such as visitor permits are still issued with physical permit stickers. The SFMTA primarily uses LPR-equipped vehicles to conduct enforcement. Virtual permits are quick to administer and become active within 24 hours after an applicant purchases their permit.

A9 Revise the visitor permit program for LPR-based enforcement with a daily, graduated rate.

Personas Affected

Older Adults

Low Income Family

Young Professional

Student

Small Business Professional

Visitor from Greater Boston

Low Income Employee

Priority	●○○	Cost	$$$
Potential Parking Demand Impact	–	Potential Parking Supply Impact	–
Related to Permit Program?	Yes	Related Strategies	A1, A6, A7, A8, A10

Implementation Timeframe

Year 1	Year 2	Year 3	Year 4	Year 5
		■	■	

Strategy Description

Residents of Somerville are at liberty to purchase on-street Visitor permits intended for the resident's visitors. Passes cost $20 for 2-day passes, and $40 for 3-days. The passes are valid for 1-year and can be used 2 or 3 days per week (depending on which pass is purchased. Similar to residential permits, residents apply online or by mail, make payment once their application is accepted, and are mailed permits. The resident distributes the visitor permits to the users for visual display in a visitors vehicle while parked.

As with the residential decal permitting system, this visitor pass system and process includes residual expense to generate and mail new permits each year, as well as the cumbersome administrative process. Many efficiencies and enhancements are possible using a virtual permitting system for the Visitor permits that would allow for the license plates of a visitor vehicle to serve as their permit. Features and functionalities vary by provider and software, however most permit management systems provide a wide range of flexible solutions for visitor permitting. A more flexible system with scalable enforcement through LPR cameras will provide options for the City in how much it wishes to charge for visitor passes, as well as other adjustable variables (i.e., enforceable time-periods, variable days, etc.).

Challenge Strategy is Solving

Revising the visitor permit program to match passes to license plates will allow enforcement staff to use LPR to track parking behavior more quickly and generate ongoing lessons about where, when, and how often visiting vehicles, including frequent repeat visitors, are utilizing parking spaces. Daily visitor permits will allow longer-term visitors to stay for as long as needed, which is not possible under today's scheme. Shorter-term and "pay by use" permits can reduce parking demand in residential areas by requiring visiting drivers to make more frequent, deliberate, and thoughtful decisions about whether they want to pay to park or opt for other travel modes.

Strategy Action Steps

1. Procure the relevant technology and implement a virtual permitting system (see Strategy A7, A8).
2. Integrate visitor permits into the virtual permitting system. Allow visitors to purchase permits online and customize the length of their stay. Charge for each individual use rather than charging on an annual basis.
3. Integrate residents into the visitor permit system by promoting the use of temporary visitor permits as short-term parking options when residents need to travel by car to another part of town (assuming that resident permits are switched to a zone-based system per Strategy B5).

Implementation Considerations

Virtual permitting will make enforcement of visitor permit day limits much easier.

Objectives Met

Curb Effectiveness

Pick-Up / Drop-Off

Commercial Loading

Local Business

Space Making


Reduce Drive-Alone

Bike Expansion

Transit Performance

Accessibility


Equity


Transparency

A10 Pilot automated enforcement technologies.

Priority	●●●	Cost	$$$
Potential Parking Demand Impact	–	Potential Parking Supply Impact	–
Related to Permit Program?	Yes	Related Strategies	A1, A6

Implementation Timeframe

Year 1	Year 2	Year 3	Year 4	Year 5
	■	■	■	

Personas Affected


Homeowner Family


Older Adults


Low Income Family


Young Professional

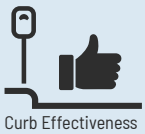

Student


Small Business Professional


Visitor from Greater Boston


Low Income Employee

Objectives Met


Curb Effectiveness

Pick-Up / Drop-Off

Commercial Loading

Local Business

Space Making

Reduce Drive-Alone

Bike Expansion

Transit Performance

Accessibility


Equity


Transparency

Strategy Description

Current traffic technologies such as red-light camera enforcement and speed camera enforcement systems use photographs of vehicles violating traffic laws to issue and send violations to registered owners. These systems are used in many cities across the nation. Similar to these technologies, in parking there are emerging automated parking enforcement systems and operations that integrate smart camera technologies with parking payment and permit management systems to automatically issue parking violations and mail them to the registered owner of a vehicle identified and photographed in violation.

Currently bill H2426 is progressing through the Massachusetts legislature which would allow for red-light and speed camera style enforcement in Massachusetts. Once passed, we recommend the City of Somerville explore the possibility of piloting the installation and use of an automated enforcement and smart camera system.

Challenge Strategy is Solving

With over 200 miles of curb space present in Somerville, enforcing all of the city's curbs is a major administrative challenge. Enforcing all areas of the city through direct labor is unlikely. Using automated enforcement technology will allow for consistent enforcement of key areas at all times of day, improving compliance.

Strategy Action Steps

1. **Develop a scope and objectives for an automated enforcement pilot.** Tie objectives back to the broader goals for curb management in Somerville.
2. **Select several candidate blocks for automated enforcement, aiming to implement in a range of areas with varying regulation types, including loading zones and permit zones.**
3. **Reach out to automated enforcement technology providers to understand their capabilities and gauge their interest in operating a pilot program at low or no cost to the City of Somerville.**
4. **Execute the permit program and track behaviors before, during, and after pilot implementation.** Even if automated enforcement and mail-issued citations are not yet legal in Massachusetts, the pilot program can yield valuable information on user behaviors.
5. **Implement automated enforcement at a larger scale in key locations when issuing citations automatically is legalized.**

Implementation Considerations

While automated enforcement technology and operating process is still being refined, some cities as well as private operators are beginning to explore this as a viable operating option. Washington DC passed an ordinance allowing for photographic enforcement as part it's Vision Zero initiative. As with the conversion to virtual permitting, the automated parking enforcement can create a public perception of perpetual accountability, through the cameras documenting of behaviors and activities, that could diminish violations and poor behaviors over time.

A10 Pilot automated enforcement technologies.

Continued

Resources

https://code.dccouncil.us/us/dc/council/code/sections/50-2303.02a.html

https://www.flintside.com/inthenews/downtownflintinstallingnewmeteredparkingforgivingoption.aspx

https://www.parking-mobility.org/2021/07/20/washington-d-c-joins-vision-zero-to-improve-bike-lane-safety/

https://www.gtechna.com/blog/ensuring-your-laws-support-ticket-by-mail

https://malegislature.gov/Bills/192/H2426/BillHistory

A11 Implement design standards to reduce modal conflicts and integrate curb needs into all roadway redesigns.

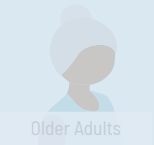
Priority	●●●	Cost	$$$
Potential Parking Demand Impact	–	Potential Parking Supply Impact	–
Related to Permit Program?	No	Related Strategies	A1, C1

Implementation Timeframe

Year 1	Year 2	Year 3	Year 4	Year 5
■	■			

Personas Affected


Homeowner Family


Older Adults


Low Income Family


Young Professional

Student


Small Business Professional


Visitor from Greater Boston


Low Income Employee

Strategy Description

Somerville should adopt specific design standards, drawing from national best practices, that can be implemented citywide when planning for new loading zones, bike facilities, bus stops, parklets, and other specialized curb facilities. These design standards should ensure that conflicts between modes are minimized and should prioritize safety over other elements. Design standards may be drawn from national resources such as the NACTO Urban Street Design Guide. Somerville should also ensure that critical building access needs, namely loading that cannot be done off-street, are accommodated when streets are redesigned. Accommodating these critical access needs ensures that loading vehicles will not conflict with other modes.

Challenge Strategy is Solving

Conflicts between pedestrians and cyclists, the road's most vulnerable users, and loading vehicles is a common source of near miss and crash events and must be mitigated through smart design. While dedicating space for bus stops, bike lanes, bike parking, on-street vehicle parking, in-street parklets and dining, and loading zones is part of the curb puzzle, ensuring that dedicated space reduces conflicts while remaining accessible is key. This means ensuring that critical building access needs (loading) are accommodated safely alongside new modal facilities. Without adopting clear design standards, conflicts between modes will persist despite additional right-of-way being set aside for priority curb functions. As Somerville accelerates its allocation of space to these curb uses, designs must incorporate national design standards adequately separate vulnerable users to reduce conflicts and sufficient daylighting to facilitate Vision Zero goals.

Strategy Action Steps

1. Refer to national guidance such as NACTO's Urban Street Design guide when designing roadway improvement to mitigate negative impacts to non-auto modes. The City is currently developing design guidelines for the Bike Network planning process and should use that process as an opportunity to address modal conflicts at the curb.
2. A variety of resources exist which explicitly address conflicts between modes through curb interventions and design mitigations. Design features in NACTO and other resources that are most prominent and impactful when reducing conflicts between modes include:
   - Curb extensions and bus bulbs
   - Curb cut restrictions and design guidelines
   - Curbside loading zones
   - Dedicated bus lanes
   - Pedestrian safety islands
   - Leading pedestrian intervals
   - Public space activation features
   - Separated and protected bikeways
   - Floating bus stops and loading zones
3. Create procedures to ensure that critical curbside building access needs are accommodated during all street redesigns and other roadway projects.

Objectives Met

Curb Effectiveness


Pick-Up / Drop-Off


Commercial Loading

Local Business


Space Making

Reduce Drive-Alone


Bike Expansion


Transit Performance


Accessibility


Equity


Transparency

A11 Implement design standards to reduce modal conflicts and integrate curb needs into all roadway redesigns.

Continued

4. Create maps which identify areas of critical building access needs by mapping loading zones, commercial land uses, and mixed-use residential buildings, and provide these maps as a resource to planners engaged in roadway design work.
5. Integrate review of curb needs into all roadway design processes.

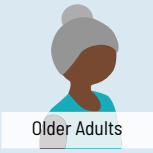
Implementation Considerations

For example, implementation of a new bike lane must consider loading needs to determine if protection is needed or if other specific design elements are necessary. Failure to accommodate loading needs adjacent to a new bike facility will lead to conflicts. Areas with a large amount of loading activity will result in parking in bike lanes if no protection or separation is provided. Bus activity must also be considered when adding bike facilities. Buses must not pull over into and across bike lanes; bus stops should be floating in order to ensure that cyclists always have a clear right of way at the curb.

A12 Collaborate with ride-hail vendors to manage demand and operations.

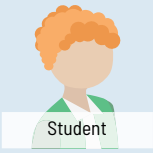
Personas Affected


Homeowner Family


Older Adults


Low Income Family


Young Professional


Student


Small Business Professional


Visitor from Greater Boston


Low Income Employee

Priority	●●●	Cost	$$$
Potential Parking Demand Impact	–	Potential Parking Supply Impact	–
Related to Permit Program?	No	Related Strategies	A1, A6

Implementation Timeframe

Year 1	Year 2	Year 3	Year 4	Year 5

Strategy Description

The City of Somerville should actively engage with Transportation Network Carrier (TNC) parent companies (e.g., Uber, Lyft, etc.) and collaborate to define and locate the safest and most desirable areas for their vehicles to pick-up and drop-off patrons, as well as the most efficient location for vehicle staging as their drivers await ride requests. Both Uber and Lyft actively market their companies as being eager to partner with municipalities. These services partner with cities across the nation to provide supplemental services. Smaller communities are exploring use of TNCs as a replacement for fixed route buses. TNCs are also expanding service lines to include food and goods deliveries. There may be supplemental benefits to establishing partnerships with TNC carriers.

Challenge Strategy is Solving

The large volume of ride-hail and delivery activity in Somerville necessitates close coordination between the City and TNC companies to mitigate impacts. Failing to provide adequate loading zones, signage, geofencing, and staging areas can lead to additional circling, conflicts between ride-hails and other modes, and double parking and other events which hurt street operations.

Strategy Action Steps

1. Define points of contact and coordination between the City of Somerville and TNC carriers.
2. Define curb-use priorities, as well as safety and congestion considerations to identify possible TNC Pick-Up/Drop-Off locations by block. This should be done in alignment with the Curb Prioritization Framework.
3. Identify and allocate staging space locations for TNCs proximate to the pick-up/drop-off locations in areas of high demand like Davis Square.

Implementation Considerations

Both national TNC carriers have climate objectives in alignment with the City of Somerville. Lyft has established a goal of 2030 for a 100% zero-emission fleet. Similarly, Uber has established a goal of 2040 for a 100% zero emission fleet. Both these goals align with the City of Somerville's goal to be carbon neutral by 2050.

Demand for ride hailing peaked pre-pandemic and is slowly returning post pandemic. Even at reduced levels, TNCs continue to compete for limited curb space. Collaborating with the carriers and organizing how TNCs are accessed and used in a city will minimize disruptions these vehicles can pose.

A TNC collaboration strategy used in other cities involves directing TNC riders to "virtual stops" (i.e., pick-up/drop-off area), corroboratively defined by the City and TNC input, to replace door to door service, can improve traffic flow, better organize curb use, and improve rider/driver safety. Virtual stops require the TNC carriers to geofence and communicate the location of the "virtual

Objectives Met


Curb Effectiveness


Pick-Up / Drop-Off

Commercial Loading

Local Business

Space Making


Reduce Drive-Alone


Bike Expansion


Transit Performance


Accessibility

Equity


Transparency

A12 Collaborate with ride-hail vendors to manage demand and operations.

Continued

stop" to users and prevent drivers from being able to pick-up riders at other portions of the block (this is typically done by carriers blacking out areas where drivers are not allowed to pick-up riders). This process should be done in tandem with allocating TNC staging spaces somewhat proximate to the virtual stop (e.g., on a side street, possible using a loading zone during off-peak hours). These collaborations could diminish TNC-inspired congestion and milling, better organize curb-use, and improve rider/driver safety.

Resources

Climate Goals

https://www.nrdc.org/experts/rabi-abonour/report-role-uber-and-lyft-sustainable-cities https://www.uber.com/us/en/about/sustainability/

https://www.lyft.com/blog/posts/leading-the-transition-to-zero-emissions

Transit Partnerships

https://nytransit.org/resources/transit-tncs/205-transit-tncs

https://www.lyft.com/transit/partnerships

https://www.uber.com/us/en/community/supporting-cities/transit/

Storm Response

https://ready.nola.gov/incident/hurricane-ida/city-of-new-orleans-coordinates-with-rideshare-com/

Domestic Violence Support

https://www.chicago.gov/city/en/depts/mayor/press_room/press_releases/2020/april/UberLyftPartnerforDomesticViolenceVictims.html

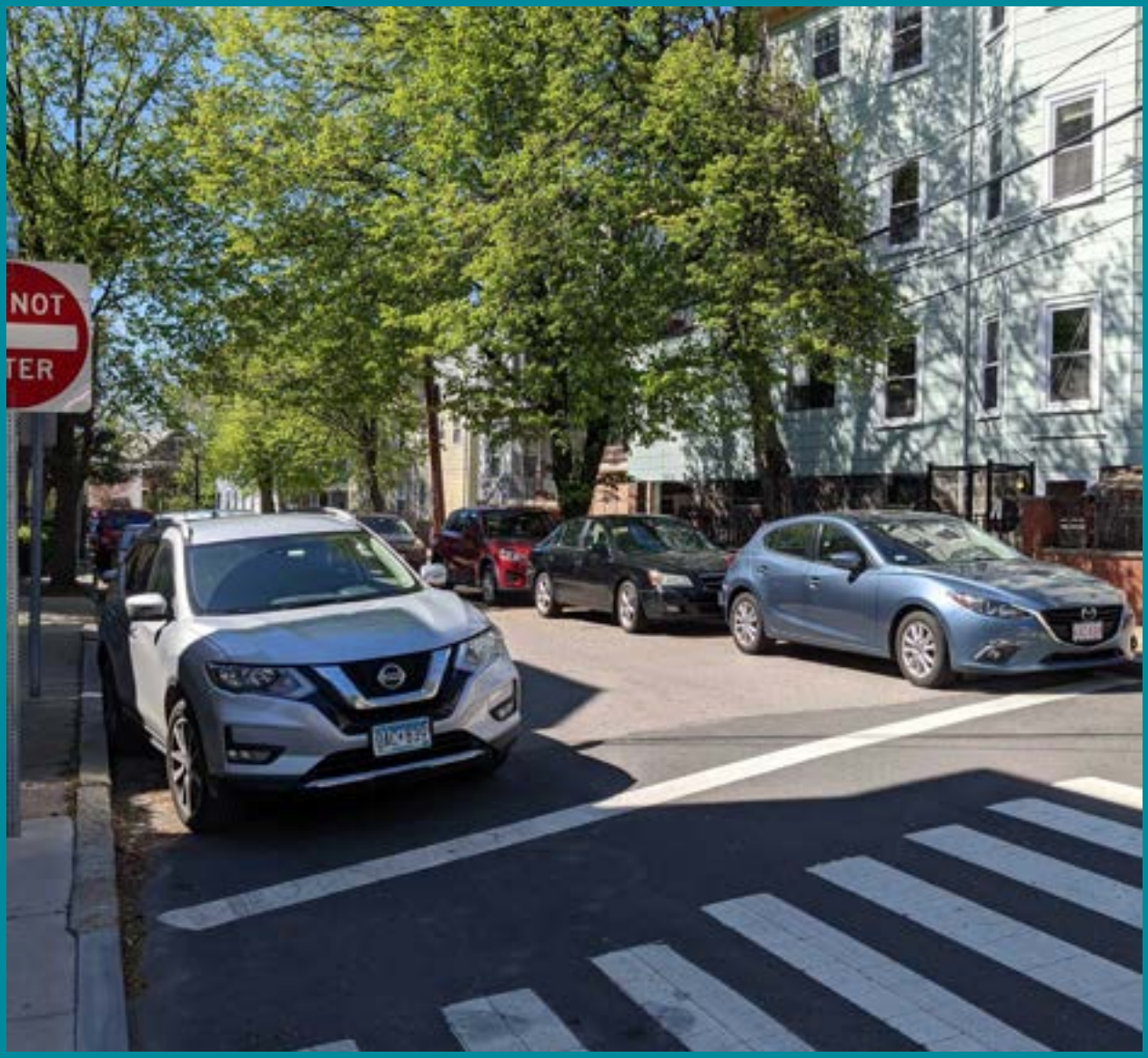

RATE: $.25 PER 15 MINUTES • TIME LIMIT:
HOURS OF OPERATION: MON-SAT 8AM
C381
FAIL

REVISE THE PERMIT PROGRAM TO MEET COMMUNITY GOALS

72% of all parking spaces in Somerville are regulated for permit parking and primarily used by residents. The way that we manage and utilize these spaces is key to our ability to achieve broader goals for curb spaces and streets as a whole.

This study proposes a series of strategies that can be implemented independently or comprehensively to revise how Somerville manages and distributes resident and other permits. The proposed approach to permit management hinges on pricing, charging residents who have less need for on-street parking more than those who have greater need.

Recommended revisions to the permit program will also promote growth of and reliance on non-driving transportation options by limiting the use cases for parking permits in some instances and prioritizing other curb users like those with accessibility needs or no alternative means of transportation. This approach is rooted in the idea of curb equity – ensuring that those users who need curb access the most are prioritized.



B1 Increase the on-street parking permit price.

Priority	●○○	Cost	$$$
Potential Parking Demand Impact	-7%	Potential Parking Supply Impact	–
Related to Permit Program?	Yes	Related Strategies	A1, A6

Implementation Timeframe

Year 1	Year 2	Year 3	Year 4	Year 5

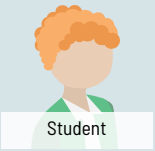
Personas Affected


Homeowner Family


Older Adults


Low Income Family


Young Professional


Student


Small Business Professional


Visitor from Greater Boston


Low Income Employee

Objectives Met


Curb Effectiveness


Pick-Up / Drop-Off


Commercial Loading


Local Business


Space Making


Reduce Drive-Alone


Bike Expansion


Transit Performance


Accessibility


Equity


Transparency

Strategy Description

Raise the price for an annual on-street residential parking permit to better reflect the market price of using public infrastructure.

Challenge Strategy is Solving

Currently, the price for a standard resident parking permit in Somerville is $40 per year. An annual cost of $40 equals approximately $0.11 per day. This low cost combined with the lack of limits on how many permits can be acquired and who can acquire them incentivizes high enrollment in the permit program. Even users who have alternative parking and mobility options still choose to purchase a resident permit due to the low barrier to entry. In comparison, a monthly MBTA pass typically costs $90 per month, and a monthly blue bikes membership costs $27 per month. The low cost of an annual parking pass in Somerville in comparison with other modes incentivizes additional parking demand and operates as a subsidy for drivers versus those who choose to or need to use public transportation. The most effective resident permit programs provide reasonable and consistent access for residents, while balancing access for other users on public streets through pricing. Effective programs should cover costs of administration and also use pricing to encourage residents to first utilize their private driveways and garages before choosing to purchase a permit.

Strategy Action Steps

1. **Determine a new base permit price that will cover the cost of parking administration and help to moderate parking demand.** A rate at least twice as high as the current rate is recommended.
2. **Integrate more advanced pricing schemes if desired, including graduated permit pricing (Strategy B2), higher pricing for residents with off-street parking (Strategy B3), and permit cost tied to income level (Strategy B6).** See the related strategies for details.
3. **Get approval from the Traffic Commission to change the permit fee structure.**
4. **Launch an outreach and marketing campaign to explain the new price structure to residents.** The campaign should emphasize that, while the increased price is intended to help discourage individuals from getting and using a permit out of convenience, it will not automatically and immediately increase street space availability. Change is gradual and the impact on vehicles using on-street permits will also be gradual.
5. **Exempt low income households from the price increases.** See Strategy B6 for more details.

Implementation Considerations

Even with a substantial increase to the base price of a parking permit, the true market value of a parking space in Somerville will be difficult to capture. Regardless, raising the base permit

B1 Increase the on-street parking permit price.

Continued

price will help to moderate parking demand in the city alongside other strategies documented in this study. While doubling the cost of a permit will make Somerville's resident permits more expensive than other municipalities in the region, the high demand for curb space in the area and the fact that Somerville is one of the densest municipalities in the United States justifies the cost. Cities in other regions have already raised permit costs well above the current $40 annual fee:

- Seattle, WA: $65
- Berkley, CA: $66
- Chicago, IL: $95
- Portland, OR: $146
- San Francisco, CA: $165

B2 Implement escalating permit pricing for on-street permits and cap the number of available permits per household.

Priority	●○○	Cost	$$$
Potential Parking Demand Impact	-4%	Potential Parking Supply Impact	–
Related to Permit Program?	Yes	Related Strategies	A1, A6, A7

Implementation Timeframe

Year 1	Year 2	Year 3	Year 4	Year 5
		■	■	

Personas Affected


Homeowner Family


Older Adults


Low Income Family


Young Professional


Student


Small Business Professional


Visitor from Greater Boston


Low Income Employee

Strategy Description

Evaluate changes to the permit price structure to charge more for second, third, and fourth permits per household. Cap the total number of permits available per household to four permits. Bring the cost of permit parking more in line with the true market value of a curb space in Somerville.

Challenge Strategy is Solving

Somerville's resident parking permits are currently inexpensive and can be acquired at far below the true market rate for a parking space in the city. Many residents may value having a vehicle present at their home, but the lack of a higher cost or a cap for additional permits means that individual households may create an outsized impact on the parking supply if they choose to store a large number of vehicles in the city.

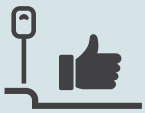
Strategy Action Steps

1. **Establish a standard for the number of permits allowed per household.** Several peer cities have settled on a cap of four permits per household. Alternatively, implement a "one permit per person" limit rather than a per-household limit. In this instance, individuals would only be allowed to purchase one permit for a vehicle registered in their name.
2. **Establish a fee structure for permits which charges more for the second, third, and fourth permits.** Doubling the cost of the permit for each subsequent vehicle is a natural starting point for this cost structure.

Implementation Considerations

Implementing a graduated permit pricing structure will impact households that are families as well as households of unrelated roommates, a common configuration in Somerville. There is no simple way to distinguish these situations. This study recommends that graduated permit pricing be implemented regardless of the large number of roommate situations in Somerville. While second, third, and fourth roommates may have to pay more for permits because they have less tenure in a given household, this is an acceptable outcome and should be worked out within households. The price per permit will follow the order of submission to the Parking Department. When households apply for permits both in-person and online on the same day, the in-person application will be considered second, because of the larger administrative burden. Each specialized permit, such as a low-income or senior permit is considered the first issued to that household. The goal of graduated permit pricing is to reduce the number of vehicles parked on-street in the city - regardless of the situation in a specific household, this pricing scheme can help to moderate on-street parking demand. Residents who have specific needs such as low incomes can always be granted exceptions to the graduated pricing structure (see Strategy B6).

Objectives Met


Curb Effectiveness


Pick-Up / Drop-Off


Commercial Loading


Local Business


Space Making


Reduce Drive-Alone


Bike Expansion


Transit Performance


Accessibility


Equity


Transparency

B2 Implement graduated permit pricing for on-street permits and cap the number of available permits per household.

Case Studies

County of Arlington, VA

The County of Arlington, VA offers resident permits on a zone-based system. Permits are renewed on an annual basis to allow for consistent tracking of data. A residential permit does not guarantee a parking space. Spaces are available on a first-come first-served basis to all permit holders in a given zone.

All households in a permit zone are eligible to receive vehicle-specific permits as well as visitor passes and FlexPasses. The FlexPass functions similarly to a vehicle-specific permit but is not affixed to a specific vehicle and can be transferred to different vehicles at the same address. The County of Arlington limits each household to four permits and uses graduated pricing to charge more for additional permits. The first pass costs $40, the second pass $55, the third pass $65, and the fourth pass $150.

The County of Arlington also considers whether an address has off-street parking. If off-street parking is available, the household is limited to only two permits. If off-street parking is not present, third and fourth permits are made available at a premium price point. The County uses an internal table of all properties in the County to verify whether off-street parking is present at an address. This table was built from real estate records and allows planners to quickly check if a property has off-street parking without having to refer to the original real estate record each time.

Low-income residents are eligible for a 50% discount on permits. Low-income applicants can provide proof of qualification through the online permit application process by providing documents from the following programs:

- Supplemental Nutrition Assistance Program (SNAP)
- Special Supplemental Nutrition Assistance Program for Women Infants, and Children (WIC)
- Temporary Assistance to Needy Families (TANF)
- Supplemental Security Income (SSI)
- Social Security Disability Insurance (SSDI)
- Low Income Home Energy Assistance Program (LIHEAP)
- Medicaid
- VA Veterans Pension Program

City of Toronto, ON

The City of Toronto charges more for permits after the first one registered to an individual. Permits are not tracked by address but rather tied to individual people, avoiding the issue of equity in instances where multiple unrelated individuals live in the same dwelling. Toronto also charges substantially more for permits for individuals who have access to off-street parking, referring to a preexisting database of property records to understand what properties have parking access. The burden of proof is on the permit applicant to demonstrate that they do not have access to that parking. This proof is typically provided as a signed letter from a landlord stating that parking access is not available for the tenant.

B3 Charge a higher permit price for people with off-street access.

Priority	●○○	Cost	$$$
Potential Parking Demand Impact	-3.50%	Potential Parking Supply Impact	–
Related to Permit Program?	Yes	Related Strategies	A1, A6, A7

Implementation Timeframe

Year 1	Year 2	Year 3	Year 4	Year 5
		■	■	

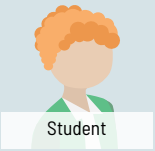
Personas Affected


Homeowner Family


Older Adults


Low Income Family


Young Professional


Student


Small Business Professional


Visitor from Greater Boston


Low Income Employee

Objectives Met


Curb Effectiveness


Pick-Up / Drop-Off


Commercial Loading


Local Business


Space Making


Reduce Drive-Alone


Bike Expansion


Transit Performance


Accessibility


Equity


Transparency

Strategy Description

Somerville residents who have access to an off-street parking space with the home they own or rent should be charged a higher fee per permit than those without a driveway, lot, or garage space. The applicant would not be denied a permit, nor will this strategy invalidate other discount permit eligibility.

Charging a higher fee is meant to disincentivize some residents from using on-street parking when they have an alternative and bring the cost of a permit more in-line with its market value. This strategy is meant to promote more efficient use of parking spaces and preserve public assets for those who need it most.

Challenge Strategy is Solving

The current price of an annual residential parking permit does not reflect the true value of an on-street parking space in the city. Citywide, there are 2.5 permits issued per on-street residential permit parking space. Residents who have an off-street space reserved at home may still often purchase a permit to drive across town, adding to the vehicle miles travelled on Somerville streets. Households with available off-street parking in a tandem configuration may choose to forgo off-street parking due to the low cost of an on-street permit, adding to the high demand for curb spaces despite the availability of off-street parking at most homes.

Strategy Action Steps

1. **Define an increased rate for permits for residents with off-street parking access.** Double the base permit price is recommended as a starting point.
2. **Planning staff should prepare and maintain a database of which residential addresses in the city feature driveways or other off-street parking.** The database can start with joining and cross-checking the complete curb cut inventory with parcel addresses to establish whether a residential building has a driveway. It will take longer to determine the number of spaces that off-street driveway or garage can accommodate. Once complete, when non-renters apply for a parking permit, this list should be checked to determine whether off-street parking is present. No additional documentation would be provided by the applicant or reviewed by parking department staff.
3. **Establish process to confirm whether permit applicants have access to off-street parking at their home.** The burden of proof should lie with the applicant to prove that they do not have access to reliably available off-street parking.
4. **Renters must share a copy of their lease as part of the application, along with proof of residency.** The majority of leases in Somerville indicate whether a parking space is included for the renter. For all households, rental or owner-occupied, where there are fewer off-street parking spaces available than household vehicles registered

B3 Charge a higher permit price for people with off-street access.

to that address, the first permit applications up until the number of off-street spaces will be the one(s) assumed to have off-street parking access.

5. **Planning staff should prepare and maintain a database of which residential addresses in the city feature driveways or other off-street parking.** When non-renters apply for a parking permit, this list should be checked to determine whether off-street parking is present. No additional documentation would be provided by the applicant or reviewed by parking department staff.

Implementation Considerations

Most landlords explicitly include language about off-street parking access in their leases. Encouraging all landlords to include this language will make for easier implementation. However, it is possible to implement this strategy by relying entirely on property records, similar to the County of Arlington (see Strategy B2).

Case Study

See case study B2 for how Arlington County and the City of Toronto confirm off-street parking access.

B4 Place a cap on permits by zone.

Priority	●○○	Cost	$$$
Potential Parking Demand Impact	–	Potential Parking Supply Impact	–
Related to Permit Program?	**Yes**	Related Strategies	**A1, A6, A7, A8, A10**

Implementation Timeframe

Year 1	Year 2	Year 3	Year 4	Year 5
		■	■	

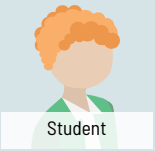
Personas Affected


Homeowner Family


Older Adults


Low Income Family


Young Professional

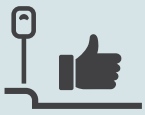

Student


Small Business Professional


Visitor from Greater Boston


Low Income Employee

Objectives Met


Curb Effectiveness


Pick-Up / Drop-Off


Commercial Loading


Local Business


Space Making


Reduce Drive-Alone


Bike Expansion


Transit Performance


Accessibility


Equity


Transparency

Strategy Description

Placing an overall cap on parking permits will ensure that the total demand for on-street parking does not outstrip the available supply. While current parking utilization data as of 2022 demonstrates that demand is still below the supply, the future may need to consider capping the number of permits sold in the future if parking utilization approaches 100%. In this case, the City would issue a permit to eligible applicants up to 120% of the documented inventory of on-street residential permit-only regulated spaces within each permit zone (see Strategy B2).

Challenge Strategy is Solving

Currently the City of Somerville has more than 53,000 registered permits for only 21,000 resident permit parking spaces equating to 2.5 permits in circulation for every single space of parking. This practice of unrestrained permit issuance can lead to a "hunting license" effect on the permit holders where they mill throughout the permit zone searching for available spaces. This behavior is tacitly encouraged by the City through the suppression of permit rates, and unlimited issuance of permits. In general, it is considered bad practice to issue significantly more permits than spaces. System user behaviors are poorly affected by this practice.

The city should formally recognize the climate implications of induced vehicle miles travelled from this practice as drivers seek limited parking or use parking permits to travel and park within the city. Price and caps are typically the most effective tools to curb demand for this limited resource.

Strategy Action Steps

1. Define parking zones (see Strategy B5).
2. Design and install new signs (see Strategy B5).
3. Establish a permit oversell ratio linked to actual number of on-street parking spaces. A typical industry guideline for an oversell ratio is 1.2-2.0.
4. Monitor RPP zones and adjust time restrictions, permit prices, permit-per-household limits, and oversell ratios based on actual permit sales and occupancy data.
5. Establish a waitlist form and issuance procedure for how and when additional permits are released when an existing permit is given up.

Implementation Considerations

Caps are not needed until the observed overnight occupancy within a zone is routinely above 90%. The zonal cap on issued permits would need to include both single-zone permits and all-zone permits (if that option is offered). The vehicle registration address listed on the application would determine which zone all-zone permitholders are counted within.

The supply of parking, demand for permits, and user utilization for each zone must be closely monitored, managed, and dynamically adapted for maximum use of the parking resource. Regular occupancy counts during all hours, but especially late-night/overnight time periods (when residential parking occupancy should be

B4 Place a cap on permits by zone.

at its peak) will provide invaluable data to inform the administration about the usage patterns and demand for space in each geographic area, as well as the suitable percentage of oversell for permits that still provides parking availability within the zone.

Establish the number of suitable spaces available within each zone to determine the number of permits to issue. Permits could be issued to household applicants, based on priority tiers: first to eligible low-income and senior individuals (See Strategy B6); second to individuals with a demonstrated lack of off-street parking (see Strategy B3); and third to individuals seeking a second permit. Prices for additional permits should incrementally increase for each additional permit per individual (see Strategy B2). The percentage increase/decrease in permit prices will typically have a direct bearing on parking demand.

Currently the City of Somerville has more than ~50,000 permits for ~20,000 spaces equating to 2.5 permits in circulation for every single space of parking. This practice of unrestrained permit issuance creates a "hunting license" effect on the permit holders whereby they mill throughout the permit zone searching for an available space. This behavior is tacitly encouraged by the City through the suppression of permit rates, and unlimited issuance of permits. In general, it is considered bad practice to issue significantly more permits than spaces. System user behaviors are poorly affected by this practice.

To improve the permit system, the city should formally recognize the climate implications of induced VMT as drivers seek limited parking and access climate funds to quantify impacts. For solutions, Price is typically the most effective tool to curb demand for a limited resource. Wait Lists can also be used to queue permit requests once the limitation for each zone has been reached.

When residents move mid-year within the City or out of the city, the City must maintain records of the permit count per zone. To incentivize residents notifying the city of their moves, the City should offer pro-rated refunds on the annual permit based on the number of months remaining in the permit term. When residents re-apply for a permit in a new zone, it will transfer the permit from their prior zone and be updated in the permit database to reflect the correct zone. Successful enforcement requires LPR so that sticker annulment is not abused.

Case Study

Toronto sets a cap on the number of overnight parking permits within a zoned area at 110% of available spaces. When the cap is reached - either by population growth or an increase in the number of vehicles per person - residents are placed on a waitlist until permit availability is created by permitholders not renewing.

The City issues permits to individuals based on three priority categories: Priority 1 is for those with a demonstrated lack of off-street parking spaces. Priority 2 is for the second permitted car per individual (at a higher permit price). Priority 3 is for individuals with access to an off-street parking space but choose to purchase a permit to get the convenience of parking on-street (at a higher permit price). If zone caps are reached, Priority 2 or Priority 3 permits are cancelled, with letters issued to permitholders and removed license place rolls issued to enforcement officers. Permitholders are asked to return their sticker as well.

B5 Enforce permits based on zones and reassess geography.

Priority	●○○	Cost	$$$
Potential Parking Demand Impact	↓	Potential Parking Supply Impact	–
Related to Permit Program?	Yes	Related Strategies	A1, A6, A7, A8, A10

Implementation Timeframe

Year 1	Year 2	Year 3	Year 4	Year 5
		■	■	■

Personas Affected

- Homeowner Family
- Older Adults
- Low Income Family
- Young Professional
- Student
- Small Business Professional
- Visitor from Greater Boston
- Low Income Employee

Objectives Met

- Curb Effectiveness
- Pick-Up / Drop-Off
- Commercial Loading
- Local Business
- Space Making
- Reduce Drive-Alone
- Bike Expansion
- Transit Performance
- Accessibility
- Equity
- Transparency

Strategy Description

Issue permits tied to specific geographic zones rather than citywide permits. Allow citywide functionality for specific groups and exceptional cases, including resident permit holders age 65 and older and those with mobility needs. Zone-based permits could be enforced all-day or merely overnight to allow for more flexibility. Use geographic zones to reduce the vehicle miles travelled generated by intra-city vehicle trips and protect resident-oriented curb spaces in high-demand areas near commercial squares.

Challenge Strategy is Solving

Somerville's existing permit program incentivizes intra-city car travel by allowing resident permit holders to park anywhere within the city. This means that residents may use cars to travel from one neighborhood to another for short, intra-city trips, despite the relative ease of making these trips by other modes (depending on text and the specific nature of the trip). This leads to greater emissions and also increases competition for limited curb spaces in non-metered areas near commercial squares.

Strategy Action Steps

1. **Define rational permit zone geographies that align with typical use patterns, neighborhood boundaries, and major infrastructure features.**
2. **Determine the limitations on permit use.** Define whether permit holders can park only in their assigned zones all day, or if zones should only apply at certain times of day.
3. **Identify user groups that should be exempt from zonal limitations.** This study recommends that permit holders age 65 and older and those with mobility needs be exempt from the zonal limits.
4. **Replace permit signage across the city to indicate zone assignments and publicize the zones widely through City channels.** Set a start date for zone-based permit enforcement following signage replacement. This work will involve increases to the sign, permit and personnel budget to accommodate implementation.
5. **Apply zone-based permit restrictions only to new permit applicants.** Users who held permits prior to zone implementation should be allowed to continue to park citywide. This will allow the City to transition to a zone-based system over time and not place undue burden on long-standing residents.

Implementation Considerations

Zone-based permits must consider the diverse needs of current and future parking permit holders. Exempting specific groups from zone limitations is a starting point to accommodating these needs. Future technologies will allow exceptions from permit zones for specific trip types. Public feedback collected during this study indicates that many residents desire to rely on their cars less, but feel that they still need them for specific trip types such as doctor's appointments. Shifting to a fully virtual, LPR-based permit program would allow residents to purchase or reserve individual trip exceptions that would allow

B5 Enforce permits based on zones and reassess geography.

Continued

them to park anywhere in the city for a small fee. Virtual permitting would allow these reservations to be made in realtime and be immediately registered for enforcement.

Zones must be defined in a rational way to reflect reasonable boundaries and allow for minor overlap at edges of zones. Zone geography can take multiple forms. For example, zones can be structured surrounding MBTA stations area walksheds - or other parking-constrained streets. Zones may not need to cover the entire city.

Zone definitions may necessitate changes to the street cleaning schedule so that each zone does not lose a disproportionate number of on-street parking spaces on a single day. Adjustments can be included on newly installed signage.

Options for zone-based management include: a) Park only in your zone overnight; b) Park only in your zone all-day; c) Exceptions made for users with mobility needs; d) Roll out zone-based permits to new residents only, preserve existing regulations for current residents.

Case Study

Multiple municipalities in New England already use partially or fully zone-based parking permit systems. These municipalities include the City of Boston, which features fully zoned permits, and the City of Cambridge, which implements zones only for visitor parking permits. Some of the most advanced and successful zone-based permit programs are found outside the United States. Stockholm, Sweden uses a zone-based parking permit program to control curb demand. Pricing for permits varies by zones, with permits in more competitive and dense zones costing more. Permit holders are only allowed to own one permit, no matter what zone they reside in. The City of Stockholm caps the number of permits by zone with no overselling. No parking spaces are reserved for residents. Instead, metered spaces and resident permits completely overlap. The number of permits issued is capped to the total number of parking spaces in the city.

B6 Tie the permit cost to income level.

Priority	●○○	Cost	$$$
Potential Parking Demand Impact	–	Potential Parking Supply Impact	–
Related to Permit Program?	Yes	Related Strategies	A1, A6, A7

Implementation Timeframe

Year 1	Year 2	Year 3	Year 4	Year 5
		■	■	

Personas Affected

- Homeowner Family
- Older Adults
- **Low Income Family**
- Young Professional
- Student
- Small Business Professional
- Visitor from Greater Boston
- **Low Income Employee**

Objectives Met

- Curb Effectiveness
- Pick-Up / Drop-Off
- Commercial Loading
- Local Business
- Space Making
- Reduce Drive-Alone
- Bike Expansion
- Transit Performance
- Accessibility
- Equity
- Transparency

Strategy Description

Increases to parking permit pricing could disproportionately impact Somerville residents with lower incomes if pricing is not adjusted for those individuals. The City of Somerville should implement discounted permit pricing for low income households in order to ensure that the residents with the greatest need can still access the parking system.

Challenge Strategy is Solving

Somerville's lower-income residents are less likely to have access to dedicated off-street parking and more likely to need to park on-street. An analysis of permit and demographic data indicates that low-income households are more likely to secure on-street parking permits. Preserving the current parking permit rates for low-income residents will ensure that these users still have access to the parking they need.

Strategy Action Steps

1. **Determine a discounted permit price for low-income residents.** This study recommends that the discounted base price align with the current $40 fee for resident permits.
2. **Implement a process to determine which permit applicants qualify for the low-income fee.** Other municipalities allow residents who qualify for any of the below programs to also receive the discounted permit rate:
   - Supplemental Nutrition Assistance Program (SNAP)
   - Special Supplemental Nutrition Assistance Program for Women Infants, and Children (WIC)
   - Temporary Assistance to Needy Families (TANF)
   - Supplemental Security Income (SSI)
   - Social Security Disability Insurance (SSDI)
   - Low Income Home Energy Assistance Program (LIHEAP)
   - Medicaid
   - VA Veterans Pension Program

Implementation Considerations

Applicants will need to provide documentation to prove that they qualify for one of the eligible programs to justify their discounted parking permit rate. One common document which can verify this eligibility is a utility bill showing inclusion in the Low Income Home Energy Assistance Program.

Verification of program eligibility will likely increase the transaction time for individuals waiting for permit issuance. Additional clerk staffing may be necessary to reduce delay.

Case Study

See case study for B2 for a description of how Arlington County confirms eligibility for discounted permit cost.

B7 Ensure adequate access for employees of local businesses, including by revising the Business Visitor Permit Pass.

Priority	●○○	Cost	$$$
Potential Parking Demand Impact	–	Potential Parking Supply Impact	–
Related to Permit Program?	Yes	Related Strategies	A1, A6

Implementation Timeframe

Year 1	Year 2	Year 3	Year 4	Year 5
■	■			

Strategy Description

The City of Somerville should continue to operate the business permit program and should increase the cost in order to control rising demand. Cost should be at or above the cost of an MBTA pass in order to promote alternative transportation options. Employees of small businesses should be prioritized when caps are put into place.

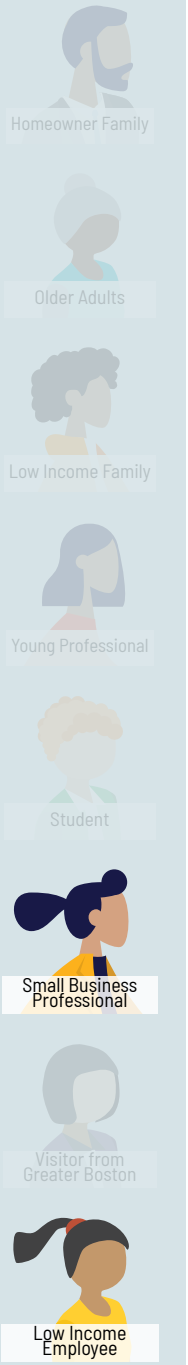
Challenge Strategy is Solving

Many small businesses in Somerville do not have their own off-street parking for employees. Somerville's business permit program allows these employees to park on the street for $150/year ($12.50/month) or $1200/year in designated off-street lots. Rising demand for these permits has made them difficult to acquire, and the current permit cost is far cheaper than paying for an MBTA pass. Raising the price of the permit to a similar level as a transit pass will incentivize small business employees to use non-driving modes of transportation.

Strategy Action Steps

1. **Continue to enforce a limit of one employee parking permit per employee.** Require proof of employment. New developments with off-street parking should not be eligible for the employee parking permit program unless they plan to offer publicly accessible permit spaces in their own parking facilities.
2. **Revise the permit oversell ratio.** A suggested starting oversell ratio is 1.2 potentially growing to 1.5+, depending on parking supply and observed utilization patterns. A 1.2 ratio is a starting point for zone-based management of employee permits, but should be adjusted based on permit and utilization data for the overall zone, given the unequal distribution of employment across the city.
3. **Raise the price of an employee on-street parking permit to $90 a month, matching the typical MBTA monthly pass, tying the rate to any future fare increases and incrementally increasing the price to the target over the course of five years.**. Permits can be purchased monthly or annually, without a discount. Until virtual permitting is implemented, permits will need to be offered solely on an annual basis due to enforcement limitations. After virtual permitting implementation, monthly permits will provide greater flexibility.
4. **As part of revised program, design an Affordable Parking Program that provides discount monthly/quarterly parking permits to certain segments of Somerville small business employees.** Employee eligibility could be determined by sector (service/retail) and/or income level, requiring proof of employment and/or income. The size of the employer and socioeconomic status of the owners may also be considered. Provide promotional support in collaboration with Constituent Services to raise awareness and participation among small businesses and service employees.

Personas Affected



Objectives Met

B7 Ensure adequate access for employees of local businesses, including by revising the Business Visitor Permit Pass.

5. **Evaluate expansion of the permit program to include publicly-available spaces in privately-owned off-street facilities built as part of new development.** Coordinate with developers to expand this program.
6. **Meet with private property owners to identify opportunities for expanding the permit program to privately-owned parking facilities.** Establish cost-sharing and management agreements as needed.

Implementation Considerations

Small business employees should be prioritized over employees of larger businesses which may have off-street parking access or other transportation benefits. Additional spaces should be included in the employee permit program on streets that are underutilized according to the utilization data collected for this study or any future utilization data.

While monthly permits create added flexibility for employees, it does require additional monitoring and tracking activities and time from the Parking Department to maintain the oversell ratio. Additional clerk staffing may be necessary.

Case Study

Berkeley, California sets the price of a business permit at 280% of the price of residential permits.

REALLOCATE CURB SPACE TO SUPPORT COMMUNITY GOALS

Meeting our goals for Somerville's transportation network means reallocating space at the curbside to support emerging needs and the modal networks that the community supports. The Curb Prioritization Framework documented in this report provides a policy framework to guide future street redesigns in Somerville.

Expansion of bus and bike infrastructure throughout the city can help encourage mode shift – ensuring that adequate space for these modes exists at the curb is key. Expansion of flexible loading zones, electric vehicle charging zones, and accessible parking spaces to match growing need will also reduce the number of spaces for long-term vehicle storage, requiring policies to mitigate growing parking demand. As total parking decreases, the remaining spaces must be prioritized for high-priority users.

C1 Implement a Curb Prioritization Framework to prioritize curb access for the users with the greatest need.

Personas Affected


Homeowner Family


Older Adults


Low Income Family


Young Professional

Student


Small Business Professional


Visitor from Greater Boston


Low Income Employee

Priority	●●●	Cost	$$$
Potential Parking Demand Impact	–	Potential Parking Supply Impact	–
Related to Permit Program?	No	Related Strategies	–

Implementation Timeframe

Year 1	Year 2	Year 3	Year 4	Year 5

Strategy Description

Somerville should adopt a Curb Prioritization Framework that accommodates the full range of curb demands and defines specific curb use priorities across the city's diverse environments that can vary block by block on the same street. The City should develop a map of all city streets tagged with curb types defined in the Prioritization Framework and regularly maintain a record of curb types throughout the city. The Curb Prioritization Framework should be referenced for street design and regulatory guidance when changes are made to city streets, in public outreach material for city projects and planning efforts that related to the transportation network, and when new developments are proposed.

Challenge Strategy is Solving

Expansion of the multimodal transportation networks that are necessary to meet SomerVision goals is difficult under the current regulatory and design framework, preventing a more timely mode shift toward non-driving modes. The lack of clear priority guidelines also leaves little flexibility for non-driving uses such as short-term and long-term loading, bicycle and scooter storage, outdoor dining, and expanded pedestrian space, as dedicating space to these uses typically requires taking a travel lane or parking lane in the constrained rights-of-way found in Somerville.

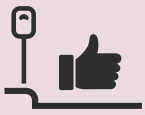
Strategy Action Steps

1. Adopting the Curb Prioritization Framework from the Rethinking the Curb chapter of this report (p. 22) as part of the City's street design and curb regulation processes will create clear guidance on how decisions are made about allocating curb space.
2. The City's Traffic Commission should formally adopt the Curb Prioritization Framework as a guiding document.
3. The Curb Prioritization Framework should also be distributed to the curb stakeholders in the Mobility and Parking Departments, as well as DPW, Communication and Community Engagement, Mayor's Office, OSPCD, Planning Board, Urban Design Commission, and Accessibility Services to ensure that all relevant parties understand the vision for Somerville's curb and how they fit into it.
4. A designated curb champion within the Mobility Department should serve as the primary owner and developer of a map of curb types within the city, working closely with other stakeholders to foster support for the designations and changes over time as the city evolves with new and redevelopments.

Implementation Considerations

The Curb Prioritization Framework should not remain static and is intended to serve as a living document. As conditions change, long-term planning evolves, and new technologies emerge, the City should update the Curb Prioritization Framework to reflect latest conditions and shifting demands. This means updating the Curb Prioritization Framework map to adjust how curbs are assigned, as well as adjusting the types themselves to reflect priority functions and featured elements of each function.

Objectives Met


Curb Effectiveness


Pick-Up / Drop-Off


Commercial Loading


Local Business


Space Making


Reduce Drive-Alone


Bike Expansion


Transit Performance


Accessibility


Equity


Transparency

C1 Implement a Curb Prioritization Framework to prioritize curb access for the users with the greatest need.

Continued

Case Study

The Seattle Department of Transportation (SDOT) pioneered the notion of a curb typology and the concept has been adopted in a series of cities as they have sought to manage their curbs. SDOT began by developing a robust concept of what the main functions of the curb lane can and should be. At the highest level, the curb is a transition zone between the fast-moving vehicles in the roadway and the slower moving sidewalk. This transition is required to access adjacent land uses.

Two functions of the curb then are Access for People and Access for Goods. Access for People can be achieved via passenger load zones, bus stops, and parking spaces; Access for Goods can be achieved with loading zones. Another function they defined is mobility. The curb lane serves a mobility function when it is used as a travel lane for buses, cars, bikes, or as is typical in Atlanta, designated for all light vehicles. It also serves a mobility function when portions are reserved for turn pockets. Safety is another function of the curb whether the space is reserved around the fire hydrants or at the ends of the block for daylighting.

Three other curb functions identified by SDOT are Activation, Greening and Storage. Activation became particularly important in many cities as open streets and open restaurants became part of the COVID-19 response. Greening serves to increase quality of life, air quality, and water management as swales or rain gardens. In the Seattle context, Storage included private vehicle parking, spaces where commercial service providers (such as appliance repair) can store vehicles while working on a job, and also bus layover space.

The illustrations below show how SDOT understands curb functions and uses and how they are prioritized according to land uses.

Flex zone functions are priortized based on surrounding land use...

Residential	Commercial & Mixed Use	Industrial
Access for People	Access for Commerce	
Access for Commerce	Access for People	
Greening	Activation	Storage
Storage	Greening	Activation
Activation	Storage	Greening

C2 Expand multimodal (bus and bike) infrastructure.

Priority	●●●	Cost	$$$
Potential Parking Demand Impact	–	Potential Parking Supply Impact	–
Related to Permit Program?	No	Related Strategies	A1, C1

Implementation Timeframe

Year 1	Year 2	Year 3	Year 4	Year 5

Strategy Description

Design and construct multimodal infrastructure to increase the share of people walking and biking to support healthy communities and increase the share of people taking transit to reduce parking demand.

Challenge Strategy is Solving

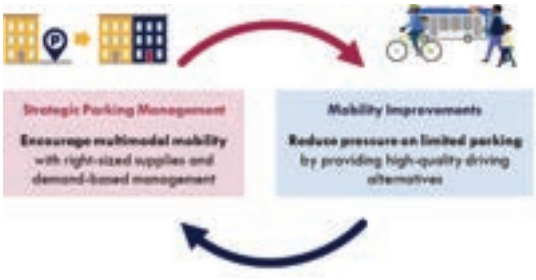
Somerville has clear goals to reduce emissions identified in SomerVision. Constructing multimodal infrastructure is one of the most impactful ways to meet these goals from the transportation perspective. Investing in this infrastructure will reduce the total number of people driving, improve safety, congestion, and street operations, and reduce parking demand, allowing Somerville's curbs to be allocated for non-parking uses.

Strategy Action Steps

1. Complete the Somerville Bicycle Network Plan.
2. Closely track the MBTA's Bus Network Redesign Plans to understand the impacts on transit accessibility to Somerville's Squares, job centers, and key social services destinations. Plan to allocate curb space to bus priority treatments in alignment with the Bus Network Redesign.
3. Improve the speed and reliability of bus and rail transit through signal priority investments on major corridors.
4. Make steady progress in building out a comprehensive network of active transportation corridors in the city.
5. Continue evaluating the feasibility of installing additional docks where highly requested by residents to meet the City's goal for station coverage. Leverage partnerships with private developments and collaborate with community-based organizations to expand the BlueBike network.
6. Continue coordinating with Cambridge, Boston, Brookline and other municipal BlueBike partners of introducing e-bikes to the BlueBike fleet to overcome topographical challenges crossing Somerville across the North/South axis.

Implementation Considerations

Investments in non-driving mobility improvements will facilitate a virtuous cycle between how Somerville manages parking and the ability to further invest in mobility improvements. Mobility improvements reduce parking demand, allowing parking spaces to be reallocated to further mobility improvements, creating a feedback loop of positive change in the community.



Personas Affected

- Homeowner Family
- Older Adults
- Low Income Family
- Young Professional
- Student
- Small Business Professional
- Visitor from Greater Boston
- Low Income Employee

Objectives Met

- Curb Effectiveness
- Pick-Up / Drop-Off
- Commercial Loading
- Local Business
- Space Making
- Reduce Drive-Alone
- Bike Expansion
- Transit Performance
- Accessibility
- Equity
- Transparency

C3 Ensure adequate access for commercial and passenger loading activities in key districts.

Personas Affected


Homeowner Family


Older Adults


Low Income Family


Young Professional


Student


Small Business Professional


Visitor from Greater Boston


Low Income Employee

Priority	●●●	Cost	$$$
Potential Parking Demand Impact	–	Potential Parking Supply Impact	–
Related to Permit Program?	No	Related Strategies	A1, C1

Implementation Timeframe

Year 1	Year 2	Year 3	Year 4	Year 5
■	■			

Strategy Description

Formalize, expand, and manage both commercial and passenger loading to ensure that goods delivery and people get to their destinations with minimal conflicts with other users of the street, curb, and sidewalk. The City should coordinate with stakeholders and use new data sources to identify loading hotspots. Loading expansion will require formalizing processes to add or modify loading zones through means other than direct requests. Somerville should monitor new loading zones over time to ensure that they are performing adequately and that dimensions are appropriate.

Challenge Strategy is Solving

The explosive growth in ride hail trips and food and parcel delivery has created a tremendous demand for short-term loading and pick-up/drop-off activity. Without sufficient loading space, Somerville's squares and main street curbs can experience poor operations and conflicts between loading vehicles and other transportation modes as drivers pull up wherever is convenient for them or their passenger without regard for other users. At the same time, exponential growth in e-commerce and just-in-time delivery has increased demand on the curb for freight, small package, and other commercial/residential loading on all streets. Insufficient space devoted to these demands will result in vehicles double parking and stopping in travel lanes, bike lanes and blocking bus stops, especially when the curb lane is used for vehicular movement. Continuing to create and enforce loading zones in loading hotspots will reduce conflicts between modes and increase safety and efficiency for all road users.

Strategy Action Steps

1. **Identify areas where pickup / drop-off locations and commercial loading zones are inadequate by coordinating with stakeholders and integrating emerging data streams.** Some curb data vendors can identify loading hotspots by aggregating data from a variety of sources. The City can also collect video data in key commercial areas to understand where curb activity warrants a dedicated loading zone. The City should integrate the following stakeholders and data sources into loading zone planning whenever possible:

   - Local business owners and operators who may require short or long-term delivery access for their businesses to function
   - Valet operators who need curb access to conduct operations
   - Developers planning for new development or new uses
   - Transit operators whose vehicles interact with the existing curb
   - Aggregated loading activity data, such as that offered by Populus and similar vendors.
   - Data provided in cooperation with ride-hailing and micromobility operators such as Uber, Lyft, and food delivery services such as DoorDash and GrubHub.
   - Data gathered in cooperation with couriers such as UPS and FedEx.
   - Traffic violation patterns
   - Resident or 311 complaints

Objectives Met


Curb Effectiveness


Pick-Up / Drop-Off


Commercial Loading


Local Business

Space Making

Reduce Drive-Alone

Bike Expansion

Transit Performance


Accessibility


Equity


Transparency

C3 Ensure adequate access for commercial and passenger loading activities in key districts.

Continued

2. **Create clear protocols to install new loading zones and use geofencing to create pickup / drop-off locations in the busiest areas.** The designated curb champion (see Strategy B1) should coordinate loading zone planning across departments.
3. **Regularly assess performance of loading zones and adjust regulations and zone dimensions accordingly.** The City should collect data to assess the performance of existing loading zones in key areas on an annual basis. Zones which are under or over-utilized should be expanded or shortened/eliminated based on findings from these assessments. These assessments should also consider safety and conflict events occurring at loading zones such as double parking, near misses, and other similar events. Performance assessment of loading zones can be conducted in the field or by video and should:
   - **Identify any issues with compliance** from regular valet, taxi stand, ride-hail, or other loading activity operators.
   - **Determine if the zone capacity is enough** to accommodate all vehicles or if additional space is needed.
   - **Determine if regular conflicts, near misses, or other safety issues** between modes occur in order to determine if design standards are functioning correctly.
   - **Determine whether vehicles using the loading zone hold the correct loading zone permit**, if needed, as established by the City's existing loading zone permit program
4. **Continue to operate the loading zone request program to expand loading zones on an ad hoc basis in response to specific business needs.** Reach out directly to businesses in areas lacking loading zones through the Economic Development department to ensure that their needs are met.

Implementation Considerations

Once the expected number of loading activities during a peak hour period is confirmed via observation or other data, the total length in feet of needed loading space can be determined through the below formula.

$$L = (D*X)3600/20+20$$

D = *Expected average dwell time at the curb of loading vehicles, in seconds (typically 30-60 seconds for pickup / drop-off, longer for short-term loading depending on context).*

X = *Expected total number of loading activities in a peak hour.*

L = *Desired total length, in feet, of the loading zone. The total length must be at least 20 feet, and should always be rounded up to the nearest twenty feet.*

C4 Enhance wayfinding to public parking facilities.

Priority	●●●	Cost	$$$
Potential Parking Demand Impact	–	Potential Parking Supply Impact	–
Related to Permit Program?	No	Related Strategies	A1, A6

Implementation Timeframe

Year 1	Year 2	Year 3	Year 4	Year 5

Personas Affected


Homeowner Family


Older Adults


Low Income Family


Young Professional

Student


Small Business Professional


Visitor from Greater Boston


Low Income Employee

Strategy Description

Key investments into new signage and lighting can encourage visitors to make better use of all parking and mobility options. Blocks in Davis Square, Magoun Square, and other commercial zones should be prioritized for improvements to encourage use of limited public facilities, while publicly-available private parking facilities built as part of new developments in Union Square, Boynton Yards, and Milk Square should be branded and indicated consistently with high visibility signage.

Challenge Strategy is Solving

Parking demand naturally gravitates to the most visible, convenient locations. As overall demand in Somerville continues to rise, it will be important to evenly distribute this demand across all available parking resources. Wayfinding will play a key role in ensuring that parking system users can find spaces which are suitable to their needs and ensure that behaviors such as circling and space hunting do not negatively impact Somerville's street operations.

Strategy Action Steps

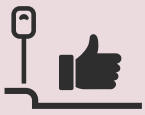
1. **Identify where lighting is lacking on key parking side streets.** Poor lighting and wayfinding is currently a deterrent to utilization of some time-limited spaces outside of metered spaces in some of Somerville's squares.
2. **Develop a consistent brand for parking and wayfinding signage that can be applied to both public parking facilities and private facilities that are open to the public.** Designs can be developed through a consultation process with a graphic design firm.
3. **Develop a map of where wayfinding signage is missing and appropriate to install for drivers near public facilities.**
4. **Work with developers during parking facility construction to ensure that their facilities are effectively marketed to the public, priced appropriately, and easy to find and identify as publicly accessible for the end user.**

Implementation Considerations

All parking signs should accurately reflect rates, time limits, permit requirements and other parking regulations. Whenever new parking policies are created, signs should be updated to reflect the new environment.

From the user perspective, the ownership of a given facility is irrelevant. Ease of use should be prioritized across the whole parking system, regardless of operator.

Objectives Met


Curb Effectiveness

Pick-Up / Drop-Off


Commercial Loading


Local Business


Space Making

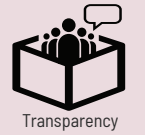
Reduce Drive-Alone

Bike Expansion

Transit Performance


Accessibility


Equity


Transparency

C5 Add off-street and on-street electric vehicle charging stations to meet growing demand.

Priority	●●●	Cost	$$$
Potential Parking Demand Impact	–	Potential Parking Supply Impact	–
Related to Permit Program?	No	Related Strategies	A1, C1, A6

Implementation Timeframe

Year 1	Year 2	Year 3	Year 4	Year 5
		■	■	■

Personas Affected


Homeowner Family


Older Adults


Low Income Family


Young Professional


Student


Small Business Professional


Visitor from Greater Boston


Low Income Employee

Strategy Description

Somerville should expand public electric vehicle charging on city streets in residential areas as well as in commercial squares. The City should continue to pursue and implement the recommendations developed for the 2020 Public Electric Vehicle Charging in Somerville report.

Challenge Strategy is Solving

Many Somerville residents do not have regular access to off-street parking or a suitable location for electric vehicle charging at their residences. In order to make electric vehicles a suitable option for individuals who need a car, public electric vehicle charging must be expanded throughout residential streets. Because many Somerville residents choose to own a car even though they do not regularly drive to work, work-end charging locations will not be sufficient to support electric vehicle use in Somerville.

Strategy Action Steps

1. Require electric vehicle charging stations at all new large scale developments (those over 25,000 square feet).
2. Adjust the Public Electric Vehicle Charging report recommendations to shift some new charger installations to commercial squares to support ride-hail and car share vehicles. Those fleets may eventually shift to a majority or all-electric configuration.
3. Continue to advance and implement recommendations for residential charging locations per the 2020 report.

Implementation Considerations

While the 2020 Public Electric Vehicle Charging report focused on residential charging needs, charging in commercial areas will remain important in the future. As delivery, ride-hail, and other fleets shift to electric vehicles, adding charging infrastructure to these areas will be key.

Case Study

Melrose, MA is the first municipality on the east coast to install public EV chargers mounted 10-feet above the ground on utility poles. The City of Los Angeles has at least 215 chargers on light poles. Melrose installed 16 chargers throughout residential areas on the limited poles that carry 240-volt cables with the help of National Grid, Verizon, EVSE LLC, Voltrek, and AmpUp. Compared to digging trenches in the roadway and sidewalk to install underground wire, tapping into the existing utility pole infrastructure can reduce installation cost and implementation timeline. The Controle Module Inc. device lowers a charging cable to the street when in use and unlocked via a smartphone app. Several installations can charge two vehicles at one time. Drivers are charged $0.20/kWh and a $5 idle fee at the 3-hour time limit of most spaces where these public chargers are installed to help encourage turnover.

Objectives Met

Curb Effectiveness

Pick-Up / Drop-Off

Commercial Loading

Local Business

Space Making

Reduce Drive-Alone

Bike Expansion

Transit Performance


Accessibility


Equity


Transparency

C6 Increase accessible parking in all neighborhoods in Somerville.

Personas Affected


Homeowner Family


Older Adults


Low Income Family


Young Professional


Student


Small Business Professional


Visitor from Greater Boston


Low Income Employee

Priority	●●●	Cost	$$$
Potential Parking Demand Impact	–	Potential Parking Supply Impact	–
Related to Permit Program?	No	Related Strategies	A1, A6

Implementation Timeframe

Year 1	Year 2	Year 3	Year 4	Year 5

Strategy Description

As the total number of on-street parking spaces in Somerville decreases over time, users with accessibility needs should be prioritized within the remaining space. Somerville should ensure that the allocation of accessible spaces in commercial areas meets and exceeds state guidelines and that adequate staffing resources are assigned to managing accessible parking requests.

Challenge Strategy is Solving

Curb users with accessibility needs often have no alternative to driving and parking for crucial trips. As the total amount of on-street parking decreases, these users should be prioritized for the remaining space.

Strategy Action Steps

1. Develop and regularly update a city-wide equity definition and equity framework to establish desired equity outcomes for Somerville.
2. Develop an index of metrics to measure Somerville Mobility's progress at meeting "Universal Basic Mobility" commitments across all neighborhoods and identify priority communities for investment, referred to as underserved communities.
3. Enact policy to never reduce the number of accessible spaces on the public right-of-way dur to construction. Spaces must be relocated if they need to be moved.
4. Work with the Commission on Persons with Disabilities to determine how to improve general access accessible parking in residential areas.
5. Ensure that staff who manage accessible parking requests on residential streets have adequate time and resources to field all requests in a timely manner. Add staff resources to this task if necessary.
6. Expand the accessible space inventory to at least 5% of the total on-street parking in commercial squares. The MAAB requires between 2 and 4% of off-street parking lots to be accessible spaces, depending on the size of the lot. The Public Rights of Way Accessibility Guidelines (PROWAG) recommends 4% of a block perimeter be designated for accessible parking. Spaces should be evenly distributed throughout the area.
7. Increase accessible spaces in commercial areas beyond 5% as overall on-street parking becomes more scarce. Users with accessibility needs should be prioritized when allocating remaining spaces.

Implementation Considerations

State guidelines for accessible parking should be viewed as minimums. Somerville should strive to exceed these guidelines in the knowledge that competition for curb space will increase in the coming years. Reallocating curb space to accessible parking now will prepare the city to safely and effectively accommodate these users in the future.

When new accessible parking is part of a sidewalk reconstruction project, accessible spaces will be built to meet PROWAG design standards to the extent practical: for example, by providing flush curb access.

Objectives Met

Curb Effectiveness

Pick-Up / Drop-Off

Commercial Loading

Local Business

Space Making

Reduce Drive-Alone

Bike Expansion

Transit Performance


Accessibility


Equity


Transparency

C7 Ensure adequate access for customers of local businesses.

Priority	●●●	Cost	$$$
Potential Parking Demand Impact	–	Potential Parking Supply Impact	–
Related to Permit Program?	No	Related Strategies	A1, C1

Implementation Timeframe

Year 1	Year 2	Year 3	Year 4	Year 5
■	■			

Personas Affected


Homeowner Family


Older Adults


Low Income Family


Young Professional

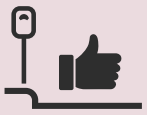
Student


Small Business Professional


Visitor from Greater Boston


Low Income Employee

Objectives Met


Curb Effectiveness

Pick-Up / Drop-Off

Commercial Loading


Local Business

Space Making

Reduce Drive-Alone

Bike Expansion

Transit Performance


Accessibility


Equity


Transparency

Strategy Description

Somerville should prioritize remaining on-street parking near commercial squares for customers of local businesses and other visitors. Data from this study demonstrates that residential parking is not currently overutilized in most areas of the city, including near popular squares like Davis Square. The City should consider adding more customer-oriented parking (meters and/or time-limited spaces) on residential streets where spaces are available near commercial areas. The City should also strive to replace popular on-street metered parking spaces when making changes to street designs that remove metered parking. Replacement parking could be found on nearby streets or in off-street facilities. The City should also work closely with impacted businesses to understand the travel patterns of their customers and ensure that non-driving modes are extensively marketed and supported in business areas.

Challenge Strategy is Solving

The rapid emergence of a large volume of curbside passenger and commercial loading activities, plus the need to expand bicycle, pedestrian, and transit network at the curb, means that many existing on-street metered parking spaces may need to be eliminated in the future to make room for other critical uses. This trend already began in the wake of the COVID-19 pandemic as large numbers of on-street metered spaces were converted to curbside loading or dining areas. Businesses are concerned that long-standing customers may leave due to a lack of parking. While most businesses have a client base that does not rely solely on driving and parking, other businesses have clients which do rely primarily or solely on driving and parking.

Strategy Action Steps

1. Consider evaluating parking utilization when proposed street changes impact metered or time-limited parking spots that support customers of local businesses.
2. Calculate the number of customer vehicles displaced by the project and seek to replace as many of these spaces on nearby streets or in available off-street facilities.
3. Continue to expand bicycle, pedestrian, and transit networks in commercial areas and promote these modes as primary means of accessing popular business districts. Work closely with businesses to understand which businesses truly rely on parking, and which have a customer base that will be receptive to non-driving transportation options.
4. Conduct customer intercept surveys in commercial areas to understand what portion of visitors arrive by driving and what portion arrive by other means.
5. Remove the obsolete curb cuts identified in the curb inventory to free up additional spaces in commercial areas.

Implementation Considerations

Given current utilization patterns, Somerville has an opportunity to expand commercial-oriented parking without creating undue burden on residents in most areas of the city. However, as overall utilization of the curb increases across the city, planners will need to weigh the needs of businesses and residents in

C7 Ensure adequate access for customers of local businesses.

Continued

areas where these groups are in close proximity. While businesses may benefit from replacement parking, there should not be an expectation that 100% of removed metered parking spaces will be replaced on side streets. Public transportation, ride-hailing, biking, and walking will continue to grow as primary means of accessing Somerville's business districts. Furthermore, new off-street parking facilities that are open to the public will continue to come online as development continues (see Strategy D6).


BUS
BUS

ADJUST REGULATIONS TO BETTER MANAGE PARKING DEMAND

Somerville's curbs attract an array of users who have different needs regarding access, mode choice, length of stay, and parking use case. Implementing flexible curbside regulations and tweaking meter management will ensure that all users can find a curb space suitable for their needs without generating excess circling activity.

Off-street parking will play a major role in serving the community's needs as well. Somerville must seek to partner with and regulate developers as they construct new parking, ensuring those facilities serve the community as a whole, not just a select few.

D1 Implement flexible curbside regulations.

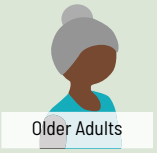
Priority	●●●	Cost	$$$
Potential Parking Demand Impact	–	Potential Parking Supply Impact	–
Related to Permit Program?	No	Related Strategies	A1, C1, A6, A10, A5

Implementation Timeframe

Year 1	Year 2	Year 3	Year 4	Year 5
		■	■	

Personas Affected


Homeowner Family


Older Adults


Low Income Family


Young Professional


Student


Small Business Professional


Visitor from Greater Boston


Low Income Employee

Strategy Description

Create a flexible framework for managing high-demand curb spaces in Somerville's squares. This means expanding the number of spaces with 5-minute passenger loading and 20-minute commercial loading. It also means regulating the same space in different ways at different times of day, such as commercial loading at 8-10 am, metered at 10 am-8 pm, and resident permit overnight. It could also mean removing time limits from metered spaces and charging a progressively higher rate after 2 hours to encourage turnover. This benefits the parker by offering increased flexibility while also capturing a premium rate for drivers who are committed to a lengthy stay. The increased rates will deter users who only require a short stay from parking beyond what they reasonably need. This added flexibility can reduce the frustration associated with seeking a suitable short- or long-term parking space.

Challenge Strategy is Solving

Access to curbside space is a valuable and limited public asset that serves many uses, including parking for cars, passenger pick-up/drop-off space, commercial loading and freight activity, curbside dining, bicycle travel and parking, and transit operations. Somerville's streets are and will continue to undergo many changes that will continue to affect curb access, including impacts from the COVID-19 pandemic, street closures for the outdoor dining program, expansion of transit and bike infrastructure, and the opening of additional Green Line Extension stations. All of these changes have implications for on-street parking demand, vehicle circulation, and multimodal access. A flexible, multimodal curb regulation can address these changes and ensure that curb space on a particular block is used efficiently, equitably, and in a way that best supports daily and seasonal dynamic needs within Somerville's squares.

Strategy Action Steps

1. Adopt the curb typology framework.
2. Identify which curb functions can be complementary if allocated at different times of day or different times of the year.
3. Select several candidate blocks to pilot shifted meter enforcement times to evaluate the appropriate enforcement time frame and changes in overnight parking utilization. Advertise pilot program to residents. This study suggests that a 10 AM - 8 PM metered enforcement period may be a good starting point for evaluation.
4. Reach out directly to businesses through the Economic Development department in areas where meter times will be changed to ensure businesses have their customer parking needs met.
5. Replace signage across the city to indicate new meter start and end times and publicize which areas the new times apply to widely through City channels.

Implementation Considerations

Today meters and time limits are generally enforced from 8 am to 8 pm throughout the city. Residents who reside near commercial areas are likely to need overnight parking access for a longer

Objectives Met


Curb Effectiveness


Pick-Up / Drop-Off


Commercial Loading


Local Business


Space Making

Reduce Drive-Alone

Bike Expansion

Transit Performance


Accessibility


Equity


Transparency

D1 Implement flexible curbside regulations.

Continued

time frame than what is allowed by these limits, making metered parking infeasible for them. By adjusting the enforcement period and regulation of metered spaces to better align with traditional commuting hours, residents can take advantage of more parking spaces in their vicinity and the City can use this a tool to address limited overnight parking supply in certain areas. Parking utilization and turnover goals can be adjusted annually if stakeholder feedback and City priorities shift.

D2 Add meters to the most popular two-hour spaces to encourage turnover.

Priority	●●●	Cost	$$$
Potential Parking Demand Impact	–	Potential Parking Supply Impact	–
Related to Permit Program?	No	Related Strategies	A1, C1

Implementation Timeframe

Year 1	Year 2	Year 3	Year 4	Year 5
		■	■	

Personas Affected

- Homeowner Family
- Older Adults
- Low Income Family
- Young Professional
- Student
- Small Business Professional
- Visitor from Greater Boston
- Low Income Employee

Strategy Description

Many Somerville streets which serve both residents and commercial visitors feature a regulation of "two-hour time limit except by permit." Utilization demonstrates the high popularity of these spaces, indicating potential to add meters to encourage turnover. Adding meters to select two-hour time-limited spaces will force fewer parking users to move their vehicle (or receive a citation) after reaching an arbitrary time limit if they need to stay longer. Instead, they will be given the opportunity to pay a premium up front to park as long as they need. Residents can continue to use these spaces by either having free access through their parking permit, or paying the meter for the few hours after they return home from work and before the meter enforcement ends.

Challenge Strategy is Solving

Time limits are a potential pitfall for highly utilized public parking systems such as Somerville's commercial parking. When spaces are difficult to find, users may choose to park in a time-limited space even if the allowed limit does not match their needs. Furthermore, time limits can discourage customers from spending additional time in a commercial area where they may engage in further consumer activity. Elimination of time limits to encourage visitors to stay as long as they wish while ensuring that adequate parking turnover takes place can be accomplished via a graduated pricing scheme.

Strategy Action Steps

1. Identify which blocks with 2-hour time-limited regulations surrounding squares or on key commercial corridors routinely surpass desired occupancy thresholds, indicating limited parking availability and turnover. Refer to Parking and Curb study observation results.
2. Add meters and correct signage to the desired areas.
3. Expand or eliminate time limits in these locations to allow both long- and short-term parking, and charge a premium for longer stays to ensure adequate turnover.
4. Consider allowing resident permit holders to park for free in these locations if residential demand is high - otherwise, residents can pay the meter until 8 PM and then park overnight for free as usual, particularly if meter start times are shifted to 10 AM.

Implementation Considerations

While graduated meter rates are not as simple as flat rates, they can be adjusted depending on changing needs of utilization and turnover. This creates a need for calibration over time to ensure that adequate turnover occurs. Should a graduated structure be put in place, internal protocols should be in place related to rate adjustments – i.e. limiting rate changes to no more than once every 6 to 12 months based on supporting data gathered over the timeframe – to avoid confusing customers.

Business owners may be concerned about the impact of greater enforcement on their customers. However, a lack of convenient on-street spaces for customers is often a greater deterrent than a few dollars of additional parking payment.

Objectives Met

- Curb Effectiveness
- Pick-Up / Drop-Off
- Commercial Loading
- Local Business
- Space Making
- Reduce Drive-Alone
- Bike Expansion
- Transit Performance
- Accessibility
- Equity
- Transparency

D3 Set meter and other curb pricing based on demand.

Priority	●●●	Cost	$$$
Potential Parking Demand Impact	–	Potential Parking Supply Impact	–
Related to Permit Program?	No	Related Strategies	A1, C1, A6, A5

Implementation Timeframe

Year 1	Year 2	Year 3	Year 4	Year 5
		■	■	

Personas Affected

- Homeowner Family
- Older Adults
- Low Income Family
- Young Professional
- Student
- Small Business Professional
- Visitor from Greater Boston
- Low Income Employee

Objectives Met

- Curb Effectiveness
- Pick-Up / Drop-Off
- Commercial Loading
- Local Business
- Space Making
- Reduce Drive-Alone
- Bike Expansion
- Transit Performance
- Accessibility
- Equity
- Transparency

Strategy Description

Demand-based parking management is a way of efficiently managing parking using clear policy goals and targets.

Somerville should set parking turnover goals independently for each parking zone, such as an average turnover of up to 2 hours for on-street spaces in Squares and average turnover of up to 4 hours for on-street spaces in non-square areas.

Parking utilization goals should be set at 85% for all commercial parking areas. This threshold represents the point at which users feel a parking space is almost always available in a given block or facility.

To maintain this utilization goal, the City will adjust parking rates at different times or days to reflect demand. For example, there may be a cheaper rate when demand is low in the morning, and a more expensive rate when demand is higher in the afternoons. The City could also choose to assign higher prices to the most desirable spaces, while less convenient lots or underutilized side streets might get assigned lower prices or be free. For a given block or off-street facility, the "right price" is the price that will achieve the 85% utilization goal.

Challenge Strategy is Solving

The primary goal of demand-based pricing is to make it as easy as possible to find a parking space. By setting specific availability targets and adjusting pricing, demand can be effectively managed so that when a motorist chooses to park, they can do so without circling the block or searching aimlessly. Demand-based pricing can result in the following benefits:

- Consistent availability and ease in finding a parking space
- Uses transparent, regularly collected data and methods of analysis to inform policy changes
- Information is readily available via web and smart phone and reports
- Optimizes the user experience of the parking system, with clear policies, better signage, and easy to use meter and pay-by-phone options
- Improves access by other modes: better parking availability reduces parking search times and traffic enhancing transit speed and reliability, and safety for people walking and cycling

Strategy Action Steps

1. Establish goals for Parking Availability and Parking Turnover to formalize, sustain, and expand the demand-based pricing scheme, and conduct regular parking utilization and turnover counts to determine what parking facilities are under- or over-utilized and inform corresponding pricing adjustments.
2. Prioritize short-term parking on commercial streets & public parking facilities
3. Ensure that all new parking meters have "smart" functionality, allowing for better tracking of data and integration with mobile app payments. There are a variety of meter types and technologies, but, at a minimum, the meters should incorporate pay-by-

D3 Set meter and other curb pricing based on demand.

Continued

phone technology. Wireless meters should also be evaluated. Remove all on-street time limits, and utilize pricing to generate turnover. As a policy, allow businesses to petition for future changes.

4. **Determine the initial rate structure and install signage to reflect that structure in key areas.**
5. **Monitor on- and off-street supply with regular occupancy counts.** Grant City staff discretion to adjust hours/pricing, especially in response to seasonal or weekend demand.

Implementation Considerations

Work with stakeholders to establish the initial rate scheme (base rate extends up to desired turnover baseline). Understanding the needs of local businesses will make rate-setting more effective. Somerville should also build a range of acceptable parking meter rates into city code so that City staff do not need Council approval for every rate change.

Case Study

SFPark Program: SFPark lowered the price of parking in their garages, which were generally underutilized, and on low-demand side streets and raised the price of parking in high-demand main streets. Even though some prices went up, overall the average cost of parking declined and street spaces opened up.

Washington, D.C. (the District) has been a national leader with its progressive approach to parking management. Owing to the District's strong housing and employment growth over the past decade, the District Department of Transportation (DDOT) needs a program to balance the competing parking needs of residents, commuters, visitors, and businesses. Using Federal funding from the Federal Highway Administration (FHWA) Value Pricing Pilot Program, DDOT planned and implemented a demand-based parking pricing pilot program in the Penn Quarter and Chinatown neighborhoods. The results of the pilot program confirmed that demand-based pricing programs can be both cost-efficient and effective, and highlighted a path to expanding demand-based pricing Districtwide.

D4 Require unbundling off-street parking spaces.

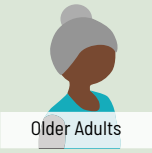
Priority	●●●	Cost	$$$
Potential Parking Demand Impact	-7%	Potential Parking Supply Impact	–
Related to Permit Program?	No	Related Strategies	A1

Implementation Timeframe

Year 1 | Year 2 | Year 3 | Year 4 | Year 5

Personas Affected


Homeowner Family


Older Adults


Low Income Family


Young Professional


Student


Small Business Professional


Visitor from Greater Boston


Low Income Employee

Strategy Description

"Unbundling" is one of the most effective TDM measures for inducing mode shift and reducing the cost burden of parking. Where parking is bundled, meaning packaged in with the cost of renting, auto-ownership is higher and driving alone is higher for both commute trips and non-commute trips. Unbundling separates parking costs from rents or housing sale prices, allowing residents to choose how much parking they want—and ensuring that non-car owners do not pay for parking they neither want nor need. The City of Somerville currently requires unbundled parking for large developments (50k square feet of commercial space or 20+ residential units). The City of Somerville consider expanding this requirement to cover all development in transit areas and work closely with require developers and landlords to offer unbundled parking options in new developments. These policies will allow developers to build housing with less parking and then use pricing to allocate the parking spaces they construct as they see fit.

Challenge Strategy is Solving

Separating the cost to rent a parking space from the cost of renting an apartment or condo may be one of the most effective ways for real-estate developers and property managers to support a more sustainable transportation sector.

Unbundled parking can result in:

- Reducing the cost of housing
- Building parking spaces based on need versus regulatory requirements
- Reducing car ownership
- Incentivizing people to use transit, walk and/or ride a bike

Strategy Action Steps

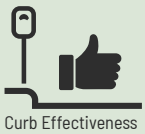
1. Change regulatory statutes in the zoning codes to require unbundled parking and establish parking maximum requirements.
2. Decide what kind of new developments these regulations will apply to:
3. New residential developments with 10 or more units?
4. New residential developments in Somerville's designated transit areas?
5. Educate developers and ensure incoming development proposals demonstrate familiarity with this approach to parking.
6. Enforce and monitor progress. Ensure that newly constructed parking which is required to be unbundled is priced correctly.

Implementation Considerations

Unbundled parking depends on reform of parking standards, often in the form of changing regulatory parking policies from parking minimums to maximum parking requirements. If minimum parking standards are not reduced or eliminated, a developer would have little or no incentive to unbundle parking because there would be an oversupply of parking that could not be rented.

Can consider policies that allow "cash out" options for the buyer when not purchasing parking spaces.

Objectives Met


Curb Effectiveness

Pick-Up / Drop-Off

Commercial Loading

Local Business

Space Making

Reduce Drive-Alone

Bike Expansion

Transit Performance


Accessibility


Equity


Transparency

D4 Require unbundling off-street parking spaces.

Continued

Requires collecting data to determine actual parking needs based in part on the availability of other transportation options.

Affordable housing funders often include stipulations on associated parking supplies and resident access to these spaces. Typically, these only apply if the funding was used toward the cost of the parking provided. Unbundling requirements should anticipate any such challenges, an be complemented by guidance to developers on how unbundling — even if not required for their project — may still be a viable option for reducing their development costs, and the rents to be charged for the units being proposed.

Often requires educating elected officials and developers on the benefits of unbundling parking, such as reduced construction costs for not building parking spaces.

Even if cities reduce parking requirements, the housing supply takes years to adjust. It would likely be a decade or two before consumers could choose from many housing options with unbundled parking.

Reducing or eliminating minimum parking requirements would have the biggest benefits to renters in higher-density, centrally located neighborhoods where designated parking is prevalent.

Case Study

The Arlington County Residential Building Study: Aggregate Analysis Update found that buildings with unbundled parking (i.e., they charge a separate fee for parking) have 6% fewer vehicles per unit and 13% fewer vehicles per adult resident than buildings with free parking.

D5 Seek shared parking opportunities, particularly during new development.

Personas Affected


Homeowner Family


Older Adults


Low Income Family


Young Professional

Student


Small Business Professional


Visitor from Greater Boston


Low Income Employee

Priority	●●●	Cost	$$$
Potential Parking Demand Impact	–	Potential Parking Supply Impact	–
Related to Permit Program?	No	Related Strategies	A1

Implementation Timeframe

Year 1	Year 2	Year 3	Year 4	Year 5

Strategy Description

Expand public availability and utilization of existing private off-street parking through strategic shared parking agreements, the creation of municipal parking districts, and the expansion of commercial parking requirements. The City already requires the largest developments (6+ stories) to offer commercial parking. The City should develop specific additional priorities and guidelines to support the creation of public-private parking partnerships in new development projects.

Challenge Strategy is Solving

A targeted effort to open and share private parking during its non-peak times is a cost-effective way to increase "public" supply and reduce competition for prime spaces across the city. New parking supply, whether publicly- or privately-funded, is an expensive and long-term investment that is difficult to change down the road. Opportunities will continue to arise in Somerville for partnering with private developers and property owners to create new, publicly-accessible parking supply. Without a clear framework for approaching and implementing these partnerships, it will remain difficult to achieve mutually beneficial outcomes. Any new off-street supply needs to be clearly aligned with other City parking management strategies and mobility goals.

Strategy Action Steps

1. **Work directly with developers in major redevelopment areas to develop a shared parking approach, requiring developers to work together to consolidate parking resources.**
2. **Consider implementing a Municipal Parking District in major redevelopment areas.** This District would identify a central location for new publicly managed parking that would be funded by and shared across new developments in the area.
3. **Create a database of private parking facilities/parcels with ownership, total parking, and existing use** (e.g. customer, worker, resident, etc.) to facilitate shared parking agreements.
4. **Continue monitoring parking utilization and net-new supply to guide decisions about parking replacement as public lots are redeveloped.**

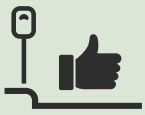
Implementation Considerations

Preparation of standard shared parking language and agreement templates in preparation for brokering shared parking will streamline the sharing process and make lot owners more likely to agree to share.

Operational roles and responsibilities. In privately-owned facilities with public access, maintenance and operating costs and responsibilities could be shared between the City and the property owner.

Standards for public access to privately-owned public parking, including hours of access and pricing. When possible, it is recommended that the City pursue partnerships which allow for all-day public access.

Objectives Met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D5 Seek shared parking opportunities, particularly during new development.

Expectations for technology and payment systems, wayfinding signage, and customer information to ensure that publicly-accessible parking is identifiable and easy to find. As needed, establish cost-sharing agreements for facility upgrades/improvements.

Facility design standards which are aligned with the goals and vision for Somerville and support vibrant street life.

Other required supporting agreements or tools, including liability and insurance.


MAIN STREET TAPROOM
- open EVERY day -