Downtown Parking Action Plan

City of Mountain View, CA

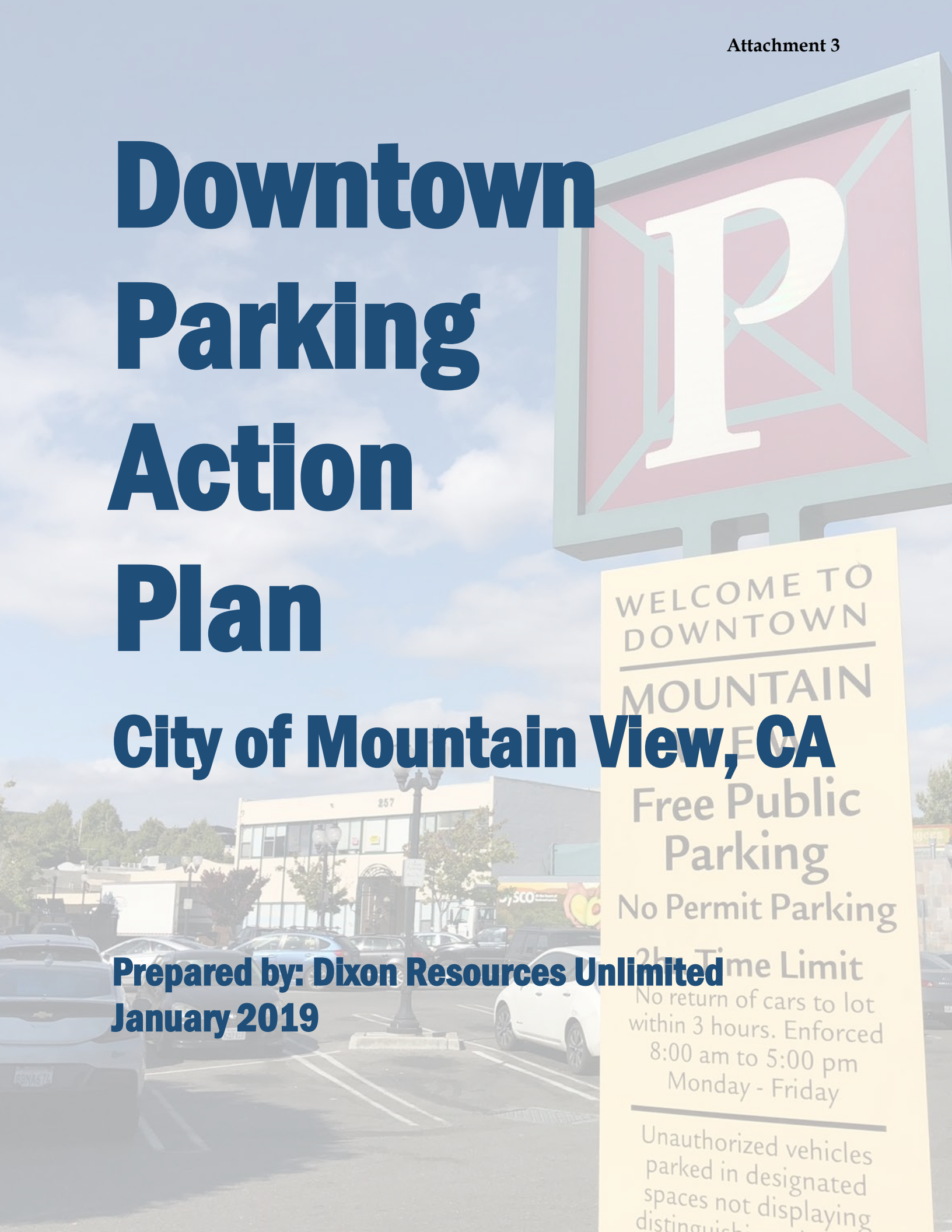

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Table of Contents

APPENDICES

Figures

Images

Tables

1. INTRODUCTION

1.1. EXECUTIVE SUMMARY

This Parking Action Plan (PAP) outlines the near-, mid-, and long-term steps needed to implement an effective and efficient parking program in the City of Mountain View (City). The provided recommendations take into consideration previous studies, on-site operational audits, and extensive stakeholder feedback. Each PAP recommendation is organized by phase with a list of detailed implementation steps and required follow-up actions. These recommendations are meant to address the current and long-term parking challenges in downtown Mountain View. Implementing these recommendations will provide immediate parking management benefits and establish the basis for future improvements. The recommended steps and timelines are meant to be realistic and achievable.

The purpose of the PAP is to provide a roadmap with steps to implement paid parking in Downtown Mountain View. Pricing strategies are some of the most flexible and effective parking management approaches to shifting parking demand. The objective of the PAP is to improve the City's management of existing public parking supply to preclude building a third parking structure.

The first section of the PAP includes a description of the stakeholder outreach process and a summary of feedback. A series of focus group meetings, stakeholder interviews, a community meeting and an online survey provided essential feedback and influenced the direction and approach for strategies within the PAP.

Next, the PAP describes a number of parking demand management strategies for consideration, including a description of potential paid parking rate models and technology, maintenance and revenue collections, enforcement, and permit management. The PAP also discusses the importance of providing affordable parking options to downtown employees prior to the implementation of paid parking. The PAP includes the following recommendations for paid parking:

- Utilize a tiered rate structure to improve parking availability. A tiered rate structure can promote turnover, maximize parking supply, and encourage alternative modes of transportation.
- Provide consistent parking enforcement to improve compliance with posted regulations.
- Utilize a customer service-based Parking Ambassador model for enforcement.
- Consider extending paid parking and time limit hours of operation into peak demand periods such as evenings and weekends.
- Implement a low-income service worker permit for downtown employees.
- Adjust permit parking rates to be consistent with nearby agencies.

- Establish a new Parking Benefit District different from the current Parking Maintenance and Operations Assessment District to reinvest parking revenue into downtown improvements and transit programs.
- Implement parking management technologies such as an automated permit management system, mobile payment, and license plate recognition cameras to provide efficiencies that will optimize the operation.
- Establish efficient and secure meter maintenance, revenue collection, and reconciliation procedures.
- Establish a no re-parking rule to improve the effectiveness of time limits by requiring that drivers move their vehicle a certain distance at the conclusion of a parking session.

Next, Transportation Demand Management (TDM) strategies are included with an overview of existing and suggested programs. These strategies can improve program efficiency and effectiveness, as well as improve the overall parking experience in Downtown Mountain View. The City already has a Transportation Management Association and number of TDM programs and strategies in place, but there are additional program enhancements that can be considered. The PAP includes the following recommendations for improving TDM:

- Establish an on-demand downtown shuttle program separate from, or in coordination with, existing shuttle programs.
- Improve regulation of shared mobility devices such as bicycles and scooters.
- Monitor ongoing autonomous vehicle trends, solutions, and impacts.
- Utilize incentive programs to encourage businesses to consider and use carpooling and transit alternatives, including subsidies and survey programs

The last section of the PAP includes additional parking solutions and strategies that can maximize the use of the City's parking resources. The PAP includes the following additional recommendations:

- Reconfigure and expand the valet parking program to improve utilization.
- Improve wayfinding and parking guidance with additional technology solutions and integrations.
- Conduct ongoing stakeholder education and outreach throughout the implementation of any strategy to ensure a transparent process.
- Pursue shared parking agreements with nearby property owners for use of existing parking supply for public parking.

1.2. DOWNTOWN MOUNTAIN VIEW

Mountain View is home to a thriving downtown with a diverse number of retailers, restaurants, and technology companies, popular public amenities, and a successful Transit Center. The downtown is supported by 11 public parking facilities – 2 parking structures and 9 surface parking lots with approximately 1,584 off-street parking spaces. The parking spaces have timed parking restrictions Monday through Friday, 8:00 a.m. to 5:00 p.m.

The Parking Maintenance and Operations Assessment District (Parking District) funds the parking facilities operations to ensure public parking is convenient, safe, and available. The Parking District revenue includes parking permit revenue, property owner assessments, and property taxes. The City's General Fund does not contribute to the Parking District. To help manage daytime parking demands between long-term parkers (i.e., office workers) and short-term parkers (i.e., retail/restaurant patrons), the City administers a downtown parking permit program for property owners, businesses, and residents within the Parking District. Eligible permit holders have an option of purchasing permits (e.g., daily, monthly, quarterly and annual).

The City completed a comprehensive Downtown Parking Study in June 2011 prepared by Wilbur Smith Associates (Wilbur Smith). The study concluded the City at that time has sufficient available parking to meet customer demand. Wilbur Smith found there are two parking peaks in the downtown – the highest parking demands occur during mid-day between 12:00 p.m. and 1:00 p.m., and during the evening between 8:00 p.m. and 9:00 p.m. While there was sufficient parking at that time, the study concluded that over the next 5 to 15 years, developed and improved commercial activity in downtown would lead to a parking deficit.

The 2011 Downtown Parking Study also outlined a parking management strategy consisting of less-intensive to more-intensive parking solutions such as managing parking demand and locations, timed parking restrictions, paid parking, and creating new parking spaces. The study also concluded that while the City approaches the target 85% occupancy rate as a whole, higher demand rates in the downtown core create an uneven occupancy distribution across the Downtown. The study suggested that if recent development trends were to continue, the City would require 480 additional spaces to accommodate its mid-day peak and 600 additional spaces to accommodate its evening peak. In November 2011, the City finalized a Parking Work Plan with a list of short-, medium-, and long-term parking management strategies for the downtown.

Most recently, in October 2016, City Council discussed downtown parking and provided input on options to accommodate parking demands in downtown. As a result, City Council directed staff to focus on two short-term options: valet parking and ridesharing pilot programs, and two long-term options: options for shared parking agreements and studying paid parking.

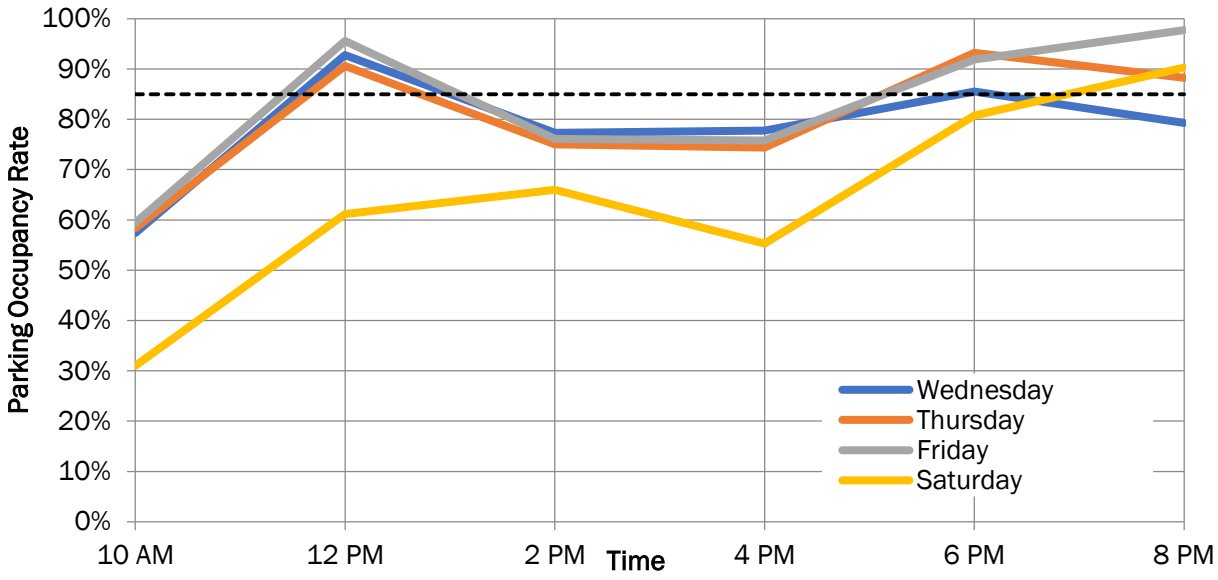
Over the years, City staff has completed a variety of parking solutions to address the increased demand. The solutions include the following items:

- Designating additional taxi and shuttle parking during the morning hours around the Transit Center;
- Adjusting the downtown parking permit fees and monitoring permit usage;
- Collecting parking occupancy data in the public parking facilities (off-street only) twice per year;
- Designating a Police Assistant to focus on downtown enforcement;
- Implementing and reviewing a Levi's Stadium Parking Pilot Program including paid parking in select downtown public parking facilities and residential parking permits (Program was discontinued in 2018 due to lack of parking demands related to Levi's Stadium.);
- Completing a downtown parking technology study and integrating technology into the parking management system;
- Piloting a free valet parking program in Parking Lot 11.

1.3. CURRENT DOWNTOWN PARKING DEMAND

To help with the overall management of the downtown public parking facilities, staff collects parking occupancy data twice per year. The most recent counts took place on April 25, 26, 27 and 28, 2018 (Wednesday through Saturday) from 10:00 a.m. to 8:00 p.m. on 2-hour intervals at the downtown public parking facilities (not including on-street public parking). The parking industry standard defines 85% as the occupancy rate target because above this rate parking becomes a challenge, therefore increasing congestion. Wednesday, Thursday and Friday had the highest parking demand on average, with the demand for public parking beginning during the lunch hour and continuing through the afternoon into the dinner hour (Appendix E - April 2018 Downtown Parking Analysis). On Saturday, the demand was low throughout the day until the dinner hour. The public parking facilities within the downtown core (100-300 block of Castro Street) typically generated the most demand.

Figure 1. Downtown Parking Demands: April 2018



1.4. DOWNTOWN PARKING ACTION PLAN

The City contracted Dixon Resources Unlimited (DIXON) to review existing parking conditions, conduct outreach to the downtown community and overall Mountain View community; and create a downtown PAP. The PAP focuses on the implementation of paid parking but also includes additional parking solutions that are necessary for the ongoing operation and enforcement of the program. Based upon the City's parking goals and objectives, the PAP identifies:

- Policies needed to implement and maintain a paid parking program;
- Physical infrastructure needs to support a paid parking solution;
- Potential paid parking locations and financial modeling;
- Changes or impacts to the Parking District;
- How paid parking can encourage alternative modes of transportation; and
- Other parking management strategies to improve program efficiency and effectiveness.

The PAP recommendations primarily focus on a study area consisting of the downtown area of the City of Mountain View, roughly located between Mercy Street & Central Expressway and between Hope Street & Franklin Street. The study area also includes Castro Street between Mercy Street and El Camino Real. The downtown core is located between Bryant Street & Hope Street and between Church Street & Evelyn Avenue. However, a number of recommendations extend to the surrounding areas of Mountain View as they may be impacted by downtown policy and program changes. Based on previous parking studies and stakeholder feedback, peak occupancy periods typically occur between 11:00 a.m. to 1:00 p.m. during the lunch rush and after 5:00 p.m. until around 8:00 p.m. during the dinner rush. During these periods, parking availability around in downtown is at or near capacity.

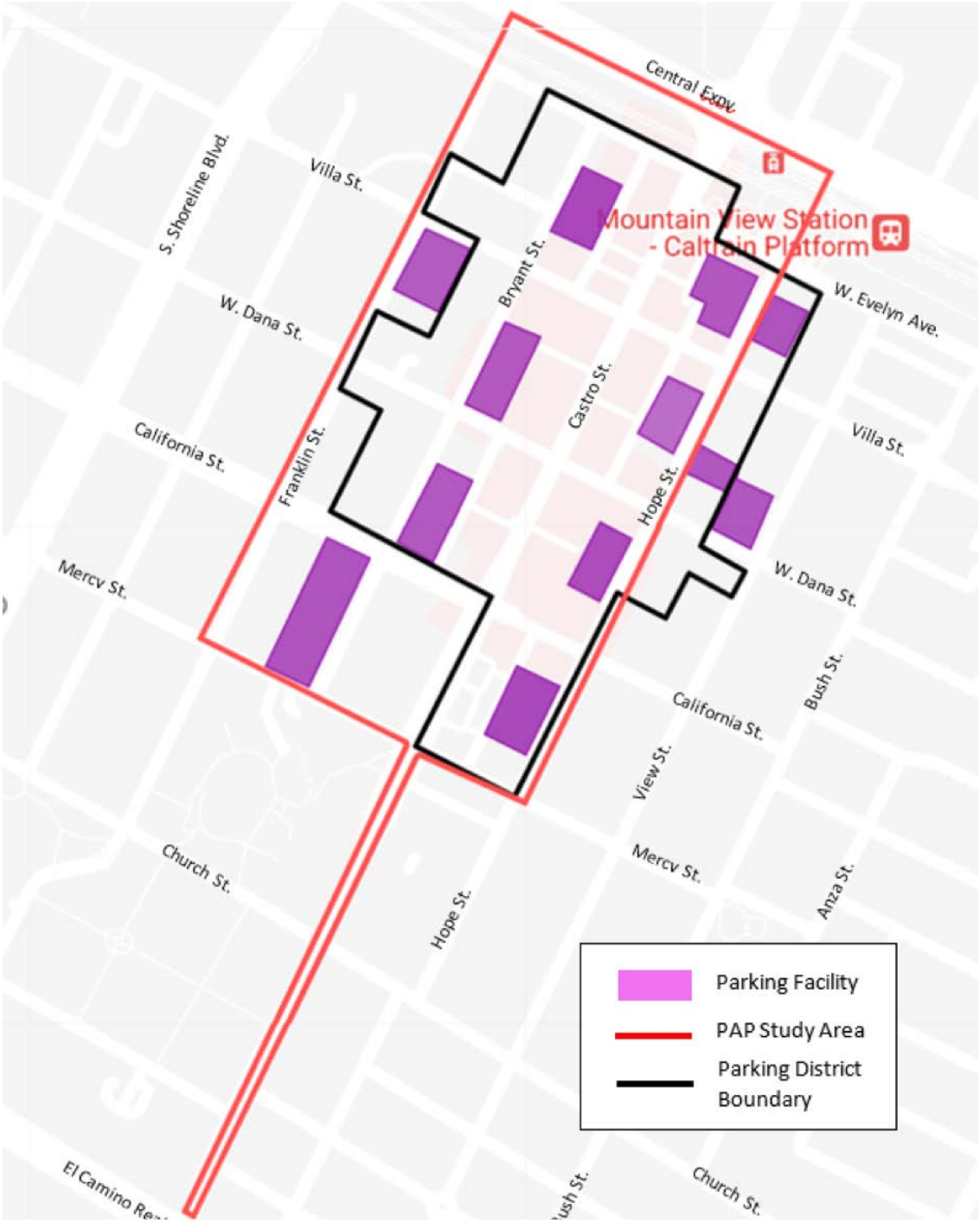


Figure 2. Study Area Map

2. STAKEHOLDER ENGAGEMENT

Stakeholder engagement was a critical component of this study. The City recognizes that, in order to have a successful parking operation, stakeholders should be engaged throughout all stages the process. The Downtown Committee initially reviewed the project scope of services to shape the direction of the study and have been engaged throughout the process. The PAP recommendations were developed following multiple site visits on June 12th, August 28th and 29th, and September 12th and 13th. It was important to solicit feedback from a variety of impacted groups, including residents, employees, business owners and City staff. In municipalities, the downtown employees are typically the most challenging group to engage in the process. Often times, shift workers may not have availability to attend City and community meetings. The City worked with DIXON to develop a comprehensive stakeholder engagement plan, which included a series of "knock and talk" door-to-door intercept surveys for employees at multiple times of the day and evening.

During the initial site visit, a series of meetings were held with both City staff and external stakeholders. The City Planning Division, Community Development, Public Works Department, and Police Department provided valuable input during these meetings. Additionally, several focus groups comprised of stakeholders who live, work, and own businesses in and around downtown including the Downtown Committee and Central Business Association. The purpose of the focus group meetings was to provide an opportunity for focused feedback in a smaller group setting. This gave participants an opportunity to focus on the aspects of parking and transportation that they are directly impacted by. A detailed overview of the stakeholder feedback is included in Appendix A. Below, Table 1 includes a list of the stakeholder meetings, the date that each occurred, and a list of primary topics and priorities that were discussed for each.

Table 1. Stakeholder Meetings

Stakeholder Meeting	Date	Primary Feedback and Priorities
Downtown Property Owners	8/28	• TDM • Equity and affordability • Influencing car ownership • Paid parking • Shared parking
Downtown Business Owners	8/28	• Enforcement • Adjusting time limits • Employee parking • Parking In Lieu of Fees
Mountain View Residents (Old Mountain View Neighborhood Association, Shoreline West Association of Neighbors, Moffett Boulevard Neighborhood Association)	8/28	• Vehicle dwelling • Oversized vehicles • First mile/last mile trips • Enforcement • Residential permit parking

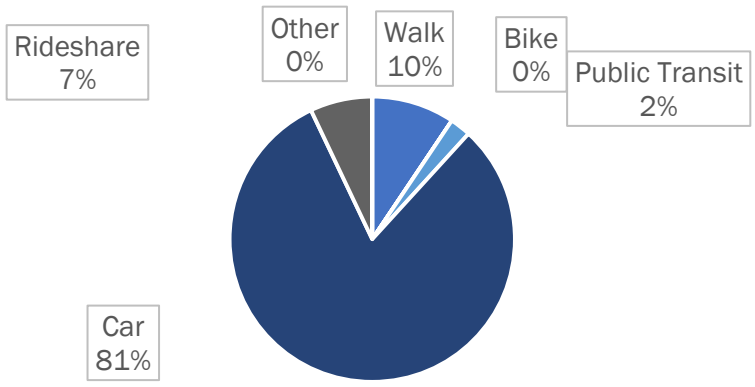
The “knock and talks” intercept surveys were conducted in August and September over the course of 4 days. The City and DIXON were committed to ensuring that members of the community were given a chance to voice their opinions, recommendations and concerns. The intercept survey was designed to collect feedback about employee parking experiences and expectations. A total of 85 employees from 70 businesses participated. Several businesses in the City were not included in the survey because employees were too busy to participate, the business was closed, or employees chose not to participate in the survey. A detailed overview of the employee survey responses is included in Appendix C.

The primary topics raised by employees included:

- Dedicated employee parking
- More long-term parking options
- Lower employee permit prices
- Passenger loading and unloading zones
- Rideshare pick-up and drop-off locations
- Increased parking supply

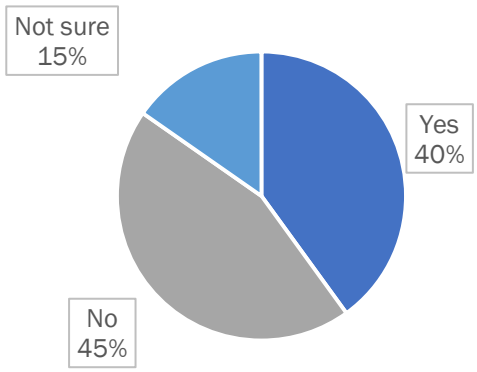
The overwhelming majority of surveyed employees (81%) drove their vehicle to work. In comparison, 10% walked, 7% utilized ridesharing services, and 2% rode public transit. None of the surveyed employees biked to work.

Figure 3. Employee survey responses: What mode of transportation did you use to get to downtown Mountain View?



Of those employees that drove, 33% of them parked on-street. Meanwhile, 74% of those surveyed think that there is not enough customer parking in downtown Mountain View. When asked about whether customers would be willing to pay for parking if it meant they could more easily find a space to park, 40% said yes, and 45% said no.

Figure 4. Employee survey responses: Do you think customers would be willing to pay for parking if it meant they could easily find a space to park?



While on-site conducting surveys, DIXON observed that the permit parking lots were near capacity as early as 8:00 a.m., well before most of the businesses in downtown were open. This is an indication that a considerable amount of off-street permit parking is being used by morning shift and nearby office employees, leaving a limited availability of parking options for retail and restaurant employees that reach downtown later in the day. Often times, employees that are unable to park in off-street lots end up parking on-street closer to their workplace, as indicated by the intercept survey results and feedback. When employees park on-street, they are storing their vehicle or shuffling their vehicle between spaces throughout the day. Providing a location where employees can park off-street frees up the valuable on-street space for customers.

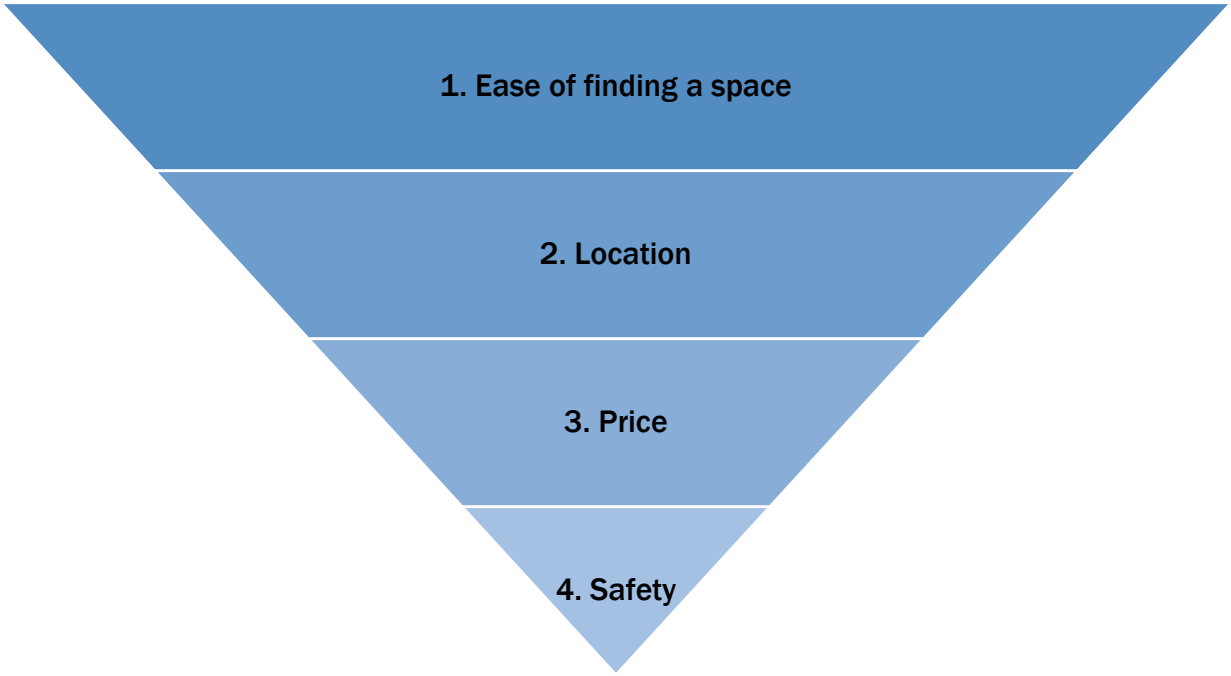
In order to reach a broader audience of Mountain View residents, the City also released an online survey. 86.1% of respondents live in the City of Mountain View, and another 8.9% reside in Santa Clara County. This survey inquired about mode choices, parking experiences, and priorities. Impressively, a total of 280 responses were collected. The survey was posted on the City's website from August 17 until October 20, 2018. The survey was intended to collect information about how people currently access and park in the downtown area and feedback about potential downtown parking policies. A detailed overview of the online survey responses is included in Appendix B.

Of those surveyed, almost 60% of respondents indicated that eating was their primary purpose of their most recent visit to downtown Mountain View. 48% of those surveyed said their most recent visit was between 1 and 2 hours. Similar to the employee survey, the online survey respondents overwhelmingly used a personal vehicle to reach downtown. 70.3% drove downtown, compared with 17.6% that walked, 7.9% that biked, and 1.4% that rode public transit.

When asked about the most important factor for deciding where to park, the top response was "Ease of finding a space", followed by "Location", "Price", and finally "Safety/Security". This prioritization may indicate an acceptance for paid parking if it means that a driver can more easily find a space. Exactly 50% of respondents agree or strongly agree that they would be willing to pay for parking if it means they can more easily find a space. In

comparison, 33.6% agree or strongly agree that they'd be willing to pay for parking if it means they can stay in a parking space for a longer amount of time.

Figure 5. Average priorities across 280 online survey responses

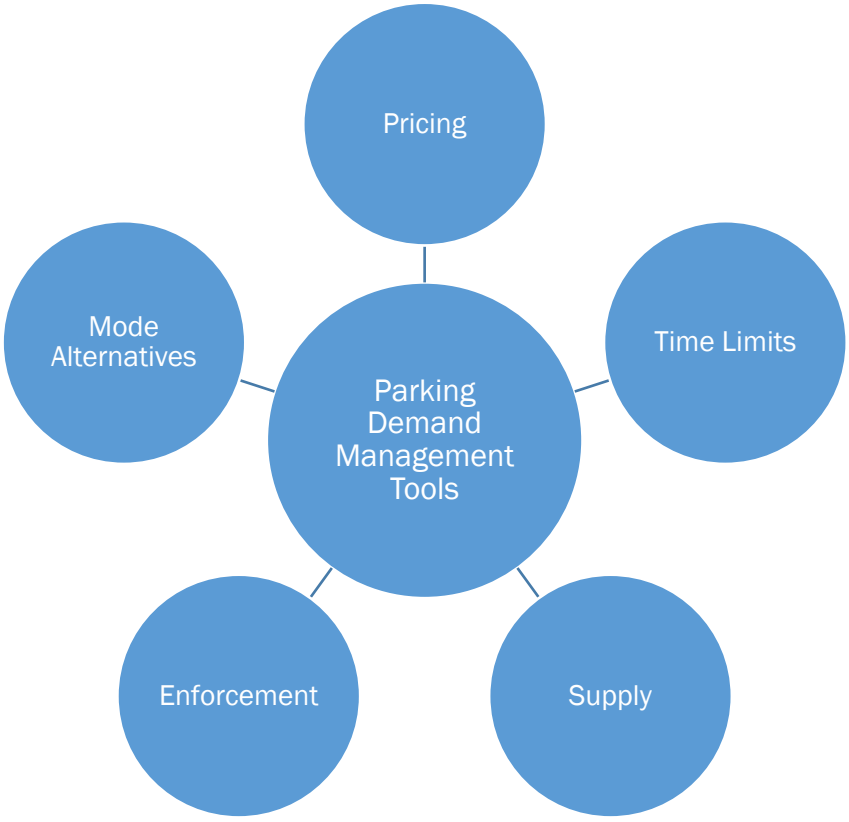


3. PARKING DEMAND MANAGEMENT

The parking industry standard for the target occupancy rate is 85%. At this rate, there are enough vacant parking spaces to: 1) minimize congestion from drivers searching for spaces; and, 2) reduce oversupply, which is an inefficient and costly use of valuable land. Parking management is a system of policies, regulations, and practices that control the use and supply of public parking both on- and off-street. The system includes managing demand, managing locations, limit time restrictions, pricing and expanding the supply. These strategies, when properly enforced, can influence driver behavior and parking utilization. The proposed PAP includes numerous recommendations that can help the City achieve the 85% occupancy rate and improve the parking experience in the City without necessarily building additional parking supply.

Proper parking management strategies can improve the utilization and availability of existing parking supply. Without strategic management, parking demand will often cluster tightly around certain locations, resulting in constrained availability precisely where most drivers prefer to park. The City could assist with the effective distribution of parking demand to optimize its use of existing parking capacities. Without management cues directing customers toward less visible parking options, this pattern can create a strong perception that "there is nowhere to park," even when available parking can be found on nearby blocks or within parking facilities.

Figure 6. Parking Demand Management Tools



3.1. PARKING PROGRAM MANAGEMENT

Ideally, the City should centralize the parking program to accommodate paid parking, enforcement, permit parking and the overall parking management for Mountain View. This could be a newly formed division or a subset of an existing department. Based upon the existing structure, the City could consider housing a position dedicated to parking and transportation demand management programs. However, ideally there would be a standalone parking division. Parking programs operate within a variety of city divisions throughout California including Finance, Community Development, Public Works and the Police Department. A centralized management approach allows for operational efficiencies and program optimization due to maintenance and support requirements for the parking organization. Many California municipalities distribute parking responsibilities throughout several city departments, a significant amount of coordination is required to organize the support needs of this type of organizational format and, often, leads to confusion and a lack of oversight which can lead to poor accountability and the potential for revenue loss.

4. PAID PARKING AND TIME LIMITS

4.1. TIME LIMITS

The City currently uses time limits to manage parking demand in downtown. On- and off-street time limits are 2 hours in most locations except for some 1-hour parking stalls along Castro Street, and some residential streets that have 5 hour time limits. Currently, time limits apply between the hours of 8:00 a.m. and 5:00 p.m. or 9:00 a.m. to 6:00 p.m., Monday through Friday only. The City Hall Garage is the only City-owned parking facility within Downtown that has no limit, but visitors may park only if conducting business in City Hall or the Performing Arts Center.

Image 1. Existing Mountain View Time Limit Signs

With the same 2-hour time limit applied consistently to the on-street and off-street parking, long-term parkers such as employees and visitors that are coming for the day must move their car from one space to another every 2 hours to avoid a citation. 48 percent of the online survey responses stated that the respondent usually only needed one to two hours of parking which indicates that 2-hour limits in Mountain View may be an appropriate limit for on-street and some off-street locations. However, nearly a quarter of the online survey respondents indicated that they stay longer than 2 hours when visiting which means the City could also increase the time limit in some off-street locations that would provide the time limits necessary for almost 25 percent of the customers in the City.

Several stakeholders within the focus groups expressed concerns that the time limits in the City were not long enough for a visitor to be able to properly visit downtown. Additionally, many of the employees that were surveyed had trouble finding long-term parking during working hours. While the existing permit program offers daily parking for employees, the cost of the permit is prohibitive to many service workers. Question 12 of the online survey inquired about whether each respondent would be willing to pay for parking if it means they can stay in a parking space for a longer amount of time. 33.6% either agree or strongly agree with the statement, and would be willing to pay for parking for a longer time limit. On the other hand, 45.7% either disagreed or strongly disagreed. This indicates that the time limits may be sufficient to serve the needs of the majority of visitors. However, there is still a portion of visitors who would prefer to stay longer. This highlights the importance of providing a variety of options for both short and long-term parking.

Figure 7. Online Survey Question 12 Responses

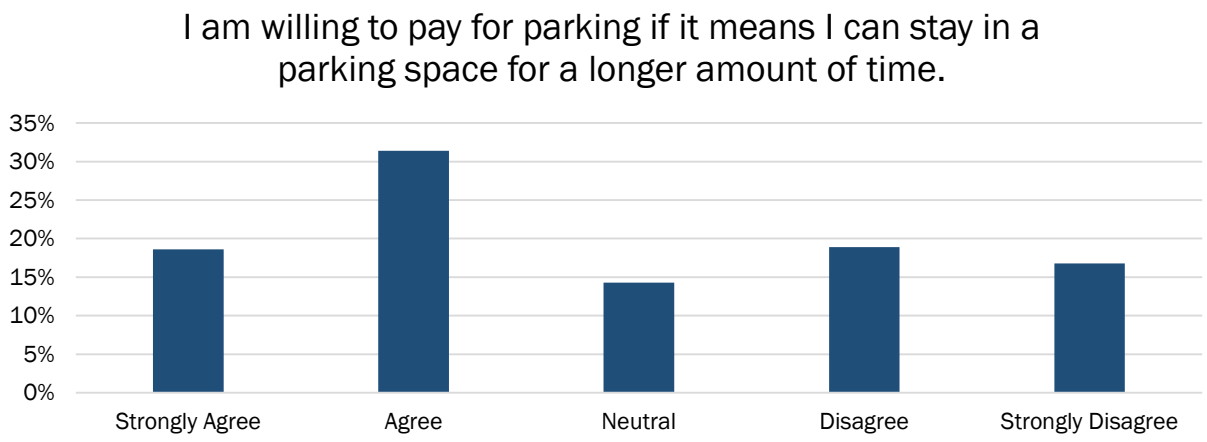


Image 2. Mountain View Garage Time Limit Sign

Time limits can be an effective way to influence driver behavior. However, visitors and employees that need or want to stay in the City for an extended duration should have adequate long-term park options so that they are not forced to move their cars every few hours to avoid citations. This approach to parking management complements the "Park Once and Walk" theory which combines land use, urban design, and parking planning strategies to encourage walkability and reduce congestion. Depending on the length of stay, the time limits should be structured to minimize the amount of vehicles re-parking or shuffling their car around downtown. Because City time limits for on- and off-street parking are the same, visitors do not have the ability to stay for extended durations. Turnover should be encouraged for prime on-street parking spaces, and long-term parking should be located off-street. When long-term visitors or employees utilize short-term on-street parking, this reduces the real rate of turnover in spaces that should be maximized to improve access to downtown.

The City should consider adjusting the time limits in the garages to 3-hours so that visitors can park for longer durations without the hassle of needing to move their vehicles. In addition to adjusting the time limit lengths, the City could explore extending the enforcement hours into the evenings and weekends. Extending time limit enforcement to weekends and into the evening hours on Thursday and Friday was suggested by numerous stakeholders. Occupancy data collected in 2018 shows parking occupancy rates increasing until 8:00 p.m., and approaches capacity on Fridays.

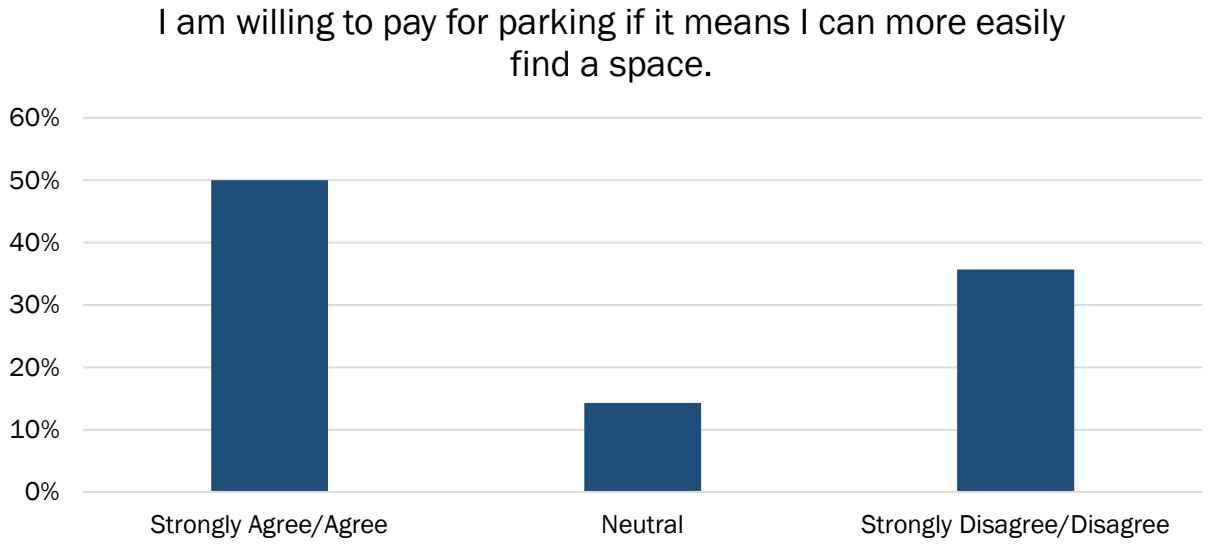
4.2. PAID PARKING

Paid parking is an opportunity to improve management of the City's public parking assets. There are a number of benefits to paid parking, including the ability to offer incentive programs, utilize rates structures to influence driver behavior, and encourage drivers to shift to alternative modes of transportation. Additionally, revenue from paid parking can support a sustainable and effective parking operation, including the ability to fund the required management, enforcement, and maintenance staffing and resources. Based upon the level of parking demand within downtown Mountain View, it is recommended that the City consider implementing paid parking.

Occupancy data gathered in April 2018 shows that the City experiences elevated occupancy rates during the lunch and dinner rushes. Wednesday, Thursday and Friday occupancy rates are typically at or above 90 percent during the 12:00 p.m. lunch hour and reach similar levels again around 6:00 p.m. These high occupancy rates indicate that the City has a parking management issue.

Question 13 in the August 17-October 20, 2018 online survey (See Appendix B) asked participants whether they agree with the following statement: "I am willing to pay for parking if it means I will more easily find a space". For reference, 86.1% of respondents live in the City of Mountain View, and another 8.9% reside in Santa Clara County. 50% of the 280 respondents either agreed or strongly agreed with the statement. In comparison, 35.7% either disagreed or strongly disagreed. During the "knock and talk" employee surveys, 40% of employees believed that customers would be willing to pay for parking. The high rate of acceptance for paid parking is a sign that many of the stakeholders in and around Mountain View are accustomed to paying for parking and understand the benefit of a paid parking operation.

Figure 8. Online Survey Question 13 Responses



A paid parking operation should be self-sustaining, and a successful program will allow the City to invest in the development of parking and transportation resources that directly benefit the community. If the City implements paid parking it would be able to reinvest revenue back into downtown, provide incentive programs to Mountain View residents and more efficiently influence parking behavior. With the current time limit only model, the City's parking operation is unlikely to be self-sustaining and will unlikely provide the City with the resources required to improve other mobility and pedestrian related solutions in downtown.

Paid parking, combined with time limits, is an important management tool for influencing driver behavior and increasing turnover rates. Without assigning a baseline monetary value to the City's parking assets, it will be challenging to implement effective incentive programs. Variations in pricing can incentivize or disincentivize the utilization of certain locations based on demand, time, length of stay, proximity, or other factors as desired. Paid parking is an effective way to discourage employees from parking in convenient spaces meant for customers. 2-hour time limits impact the ability of visitors to both shop and eat meals during the same visit. While longer time limits in some areas may improve visitor experience, they are not effective at reducing employee use of on-street spaces in the downtown core. Instead, the City can employ special rate models to achieve its desired turnover rates in these cases. See Section 4.7 for more information on current enforcement activity.

Depending on the rate model, paid parking can discourage employees from parking in paid spaces. The City should be considerate of the cost of a parking permit in comparison to metered parking to ensure that employees have an incentive to purchase a permit rather than pay for hourly parking. Encouraging employees to store their vehicles off-street will increase parking availability for customers and visitors. If the City proceeds with the implementation of paid parking, it should focus on the downtown core as a starting point. However, prior to the implementation of paid parking, the City needs to ensure that there is adequate parking available for employees and downtown residents that reside within the paid parking area(s); The City should also anticipate spillover parking impacts into the surrounding residential areas around downtown (see Sections 4.8 and 4.9.)

The City should continue to collect occupancy data on a recurring basis to monitor the growth of the program and determine appropriate program adjustments. Occupancy data can be used to determine if and when adjustments to rates or expansion of the program is needed to maintain the target goal of 85 percent occupancy. Whenever parking occupancy rates reach above 85%, this is the ideal time for the City to consider adjusting time limits and/or paid parking rates.

4.3. INFRASTRUCTURE AND TECHNOLOGY

Single-Space Meters vs. Pay Stations

The convenience and ease of use of single-space meters is what makes them effective for dense commercial areas. However, single-space meters can clutter the sidewalk space and may negatively impact the community character and aesthetic. Smart single-space meters accept credit card (and therefore debit card) payments and are enabled with back office tools and real-time access to information and data. As opposed to any customer-facing services, the back-office tools are the software or web applications that are utilized by municipal staff to access information like data, maintenance updates, reporting tools, transaction histories, payment processing, noticing, and more. This would allow the City to monitor the meters and be notified of any maintenance issues. The selected equipment must meet the Payment Card Industry (PCI) security standards for credit card transactions to make sure only the last four digits of each card number is stored. Additionally, all payment information can be tracked and audited to ensure proper revenue reconciliation during collections. Most single-space meter vendors offer meter management systems to edit the display screen, manage rate structures, and run reports. Smart single-space meters range in price from around $400 to $600 per meter mechanism plus approximately $250 to $400 for the meter housing and pole (not including shipping). There is an ongoing $6 to $8 data management cost per meter per month in addition to transaction fees.

Image 3. Single Space Smart Meter Examples (from left to right: IPS, POM, MacKay)

Multi-space pay stations on the other hand are less aesthetically intrusive than single-space meters and are commonly chosen in cases where urban design and character preservation are important to the community. Multi-space pay stations, depending on configurations, are approximately $8,500 per unit with monthly data management fees of approximately $70 per pay station per month. This pay station rate estimate does not include installation and freight, which varies based on the scope and scale of the project. The City should consider including the optional

Image 4. Multi-Space Meter Examples (from left to right: IPS, T2, Flowbird)

added features such as a motion-controlled light bar and a tilt board security feature with a siren. The typical pay station vendor also provides a meter management system that provides real-time access to pay station information and maintenance support requirements. Additionally, following year one, the City should budget approximately $30 per month for the pay station warranties. While not required, the warranties are recommended to safeguard the program and ensure equipment performance and system uptime. Pay stations normally support 7 to 12 on-street parking spaces. A typical off-street surface lot requires 1 to 4 pay stations, depending upon the configuration and number of access points. It is also recommended that pay stations and single space meters limit the primary payment method to credit card. Machines that accept cash and coin require more maintenance and collections because of the added mechanical parts in bill note acceptors and coin slot jamming. The State of California currently requires municipalities to offer either coin or cash, but the payment method does not necessarily need to be applied across the operation consistently. This means that the City could implement a primarily credit card-only program with a small number of meters that accept coin. Users could be directed to pay at the coin-accepting meter(s) if desired. City can also encourage credit card payments through pricing. Rates higher than $0.75 per hour make coin usage less convenient.

There are three main operational configurations for multi-space pay stations: pay and display, pay by space, and pay by plate:

- **Pay and Display:** The driver parks, purchases parking session time at the pay station, and then returns to the vehicle to display the dashboard receipt.
- **Pay by Space:** The driver parks in a numbered space, and then pays at the pay station using the parking space number. The driver is not required to return to the vehicle because payment is electronically tied to the space number. Parking enforcement is able to use a web application to verify payment status by parking space number.
- **Pay by Plate:** Similar to pay by space, but the driver enters the license plate number at the pay station to record payment. This method does not require drivers to return to their cars. Parking enforcement verifies payment status by license plate using a web application and/or license plate recognition (LPR) technology. More information on LPR is in Section 4.7.

For convenience, and based upon the level of turnover, it is recommended that the City install single space or dual space meters on-street. Single space and dual space meters could be considered for the on-street area bordered by West Evelyn Ave, Church St, Franklin St, and Hope St. On the other hand, off-street locations would be better served with pay stations. Each parking lot could be served by approximately 2 pay stations. Based upon the recommended equipment, the City would be installing an estimated 844 single space meters on-street and 20 pay stations within the parking lots. It is estimated that the cost of the single-space meters would amount to $1,040,000 during Year 1, including the equipment, software fees, estimated credit card transaction fees, and spare parts. For reference, the total through the fifth year is an estimated $2,670,000 for single space meters. The Financial Modeling Workbook projects a total of five years at a time, but the City can utilize the model to estimate ongoing fees beyond the five-year period. If the City were to

install dual space meters, where one meter head serves two stalls, there would be a reduction in infrastructure cost. For the purposes of being conservative, the financial estimates were based upon single space meters. For the parking lots, it is estimated that the paid parking equipment, along with fees, would cost around $226,000 during the first year and a total of $488,000 for 5 years.

Table 2. On-Street Single Space Meter Estimated Costs

Equipment cost*	$675,200
Operating costs**	$366,043

**Assumes 844 single space meters*
***Includes meter warranty (applies years 2 & 3), software fees, credit card processing fees, and spare parts (estimated 6 transactions per unit per day). Does not include ongoing maintenance or staffing support.*

Year	Cumulative Cost
Year 1	$1,041,243
Years 1-2	$1,449,486
Years 1-3	$1,857,728
Years 1-4	$2,265,971
Years 1-5	$2,674,214

Table 3. Surface Lot Multi Space Meter Estimated Costs

Equipment cost*	$170,000
Operating costs**	$56,480

**Assumes 20 multi space meters*
***Includes meter warranty (applies years 2 & 3), software fees, credit card processing fees, and spare parts (estimated 60 transactions per unit per day). Does not include ongoing maintenance or staffing support.*

Year	Cumulative Cost
Year 1	$226,480
Years 1-2	$291,960
Years 1-3	$357,440
Years 1-4	$422,920
Years 1-5	$488,400

Ideally, the City should utilize the pay by plate configuration with any pay stations. This would allow the City to enforce efficiently with the use of License Plate Recognition (LPR) technology. However, if the City were to install pay stations prior to purchasing LPR, the pay and display configuration would be an ideal interim solution. Most pay stations vendors have the ability to easily retrofit the keyboard to switch from pay and display to pay by plate. More information on LPR can be found in Section 4.7.

Parking Access Revenue Control Systems

The City could consider investing in Parking Access Revenue Control Systems (PARCS) for the garages. Rather than installing pay stations, PARCS gate arms will create controlled ingress/egress, allowing the City to better manage facility access. This also automates the enforcement of time limits and/or paid parking by requiring drivers to pay at a machine before they exit.

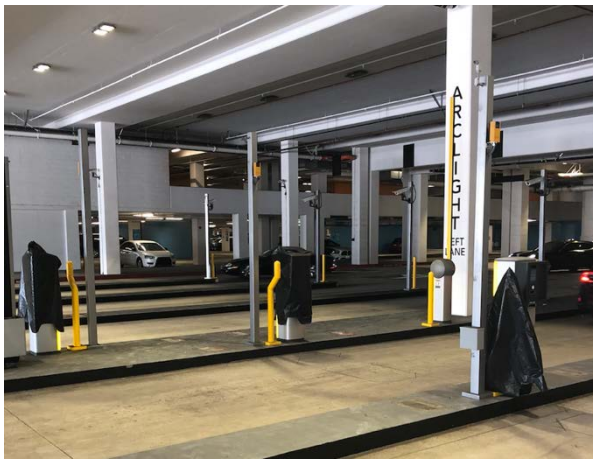


Image 5. SKIDATA Gated PARCS Entrance at the University Town Center Garage in San Diego

PARCS are typically most effective in garages because of the controlled access points; In surface lots, there is no guarantee that drivers will not avoid the gates by driving over the curb. While PARCS do cost more, the added level of security and the ability to allocate enforcement resources to other locations is ideal. Additionally, a PARCS will ensure that drivers pay for the amount of time used. This is particularly effective when combined with LPR technology.

LPR could be mounted at the garage ingress/egress points to record license plate numbers. This can expedite ingress and egress for patrons that have already paid for parking, therefore lifting the gate automatically. For Lot 1 and Lot 3, it is estimated that the PARCS equipment and fees would amount to around $758,000 during the first year and a total of $2,484,000 after 5 years. While PARCS are costlier than pay stations, they will ensure that the City captures more revenue with increased compliance rates, and it will reduce the need for enforcement resources within the garages.

Table 4. Estimated PARCS Equipment and Ongoing Costs for 2 Garages

	Lot 1	Lot 3
Qty of Units*	4	4
Ingress Egress Equipment Cost / Multi Space Meter Cost	$27,500	$27,500
Pay on Foot Equip with BNA (1 Unit Per Garage)	$34,000	$34,000
Pay on Foot Equip with Credit Card (1 Unit Per Garage)	$19,000	$19,000
Annual Software Fee - Per Access Point / Unit	$5,000	$5,000

Warranty	Included	Included
Monthly CC Processing Fees - Per Transaction	NA	NA
Estimated # of Credit Card Trans Per Unit / Per Day	NA	NA

**The City should solicit a PARCS vendor to determine the appropriate number of units required and ongoing operating costs.*

Table 5. Estimated Cumulative PARCS Costs for 2 Garages

Year	Cumulative Cost
Year 1	$757,600
Years 1-2	$1,189,200
Years 1-3	$1,620,800
Years 1-4	$2,052,400
Years 1-5	$2,484,000

Mobile Payment

It is also recommended that the City offer a mobile payment feature for customer convenience. For reference, the following list includes a sampling of Bay Area cities that already offer mobile payment solutions:

- City of Berkeley: ParkMobile
- City of Oakland: ParkMobile
- City of Redwood City: PaybyPhone
- City of San Francisco: PaybyPhone
- City of San Leandro: ParkMobile
- City of San Mateo: PaybyPhone
- City of Santa Rosa: Passport

A mobile payment solution allows drivers to pay for parking sessions using their cellphones and can be implemented with any of the aforementioned rate structures. Drivers can either call a number to pay, or they can simply create an account on a mobile application to pay online. Users are able to complete one-time uses or establish accounts with the mobile payment provider that allow them to pay for parking and extend their stays without returning to their vehicles. Zone numbers are assigned to each paid parking area for enforcement purposes, and the active paid parking sessions are tracked and verifiable by license plate numbers. A mobile payment solution can be provided to the City by a vendor at no cost to the City. Instead, the vendor is fully funded by the convenience fees charged to the users. The vendor would provide decals for the meters and would be responsible for education and outreach. Mobile payment vendors typically offer robust validation programs including resident discount programs.

Utilization of mobile payment falls between 3% and 10% in most cities, and users pay a small transaction fee, usually between $0.10 and $0.35. Mobile payment can be integrated with both the single space meters and pay stations. While current utilization may seem low,

with the continued widespread use of smart phone technology, it is recommended that the City implement a mobile payment system for all paid hourly parking locations once the paid parking program is operational. Verification of mobile payment will require enforcement staff to use a web application to verify payment status. Single space meters can receive a real-time update of mobile payment status to provide a visual verification for enforcement purposes, but this feature drains the parking meter battery.

Some vendors offer a white label service, which allows cities to utilize their own branding for the mobile payment service. An example of this is Passport's Parking Kitty application in Portland, Oregon. This customized application turned paying for parking into a more positive and fun experience for drivers. Currently, Passport is the only mobile payment provider that offers a white labelled application. But, while white labeling would allow the promotion of the City's brand, it would take away from the ability to have a broader and unified parking experience region-wide. To encourage utilization, the City should consider implementing the same mobile payment vendor utilized in neighboring agencies. This way drivers will not be required to download different applications for different locations. SFMTA utilizes PayByPhone, but the majority of nearby agencies use ParkMobile for mobile payment. The City could choose to offer multiple mobile payment options as a customer convenience. As long as the mobile payment vendor(s) are integrated with the City's citation management and enforcement technology, the enforcement officers will be able to seamlessly verify payment status.

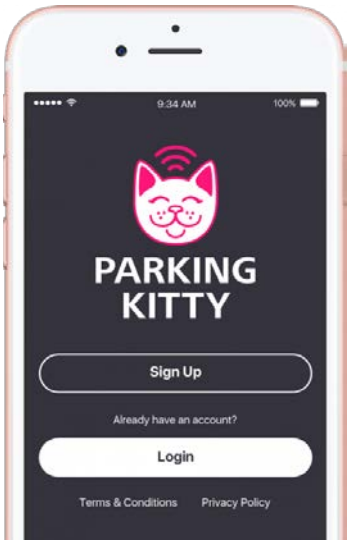


Image 6. Passport Parking Kitty Application

4.4. RATE STRUCTURES

There are several rate structures available to the City for consideration. Each structure has positive and negative externalities associated with the way that rates are applied. Regardless of the rate structure, municipalities typically price on-street spaces higher than off-street in order to encourage longer-term parkers to store their cars off-street. This tiered approach encourages a higher turnover rate on-street, therefore increasing customer access to nearby businesses. DIXON developed a Financial Modeling Workbook that will allow the City to estimate potential revenues based on a variety of different scenarios. The workbook lets the City adjust the paid parking variables such as rates, hours of operation, and compliance, to project how changes in rates and demand may influence revenue. The City should utilize this workbook to determine an ideal rate structure that will meet the goals of the City.

Comparative Rate Analysis

To understand the market rate for hourly parking, a comparative analysis of nearby municipalities was conducted. The results are outlined below in Table 6. The recommended hourly rates below are based upon this analysis. It is recommended that the City charge an hourly rate that is somewhat consistent with the market rate to ensure that the rate is affordable and conducive for business downtown. If the City charges a rate that is too low on the scale, then it is likely that the rate will not influence driver behavior. However, if the rate is too high, this could discourage visitors from coming to downtown Mountain View. The City should also consider the cost of parking at the Mountain View Transit Center, which is $5.50 per day (24 hours). Regardless of the rate model chosen, the City should be cognizant of current and future rate trends.

Table 6. Comparative Rate Analysis

City	On-Street Rates and Time Limits				Off-Street Rates
	Downtown Core		Periphery Areas		
	Hourly Rate	Time Limit	Hourly Rate	Time Limit	
San Mateo	$1.50	3 hour	$1.00	3 hour	$0.25 - $1.25
Redwood City	$1.00 (10am-6pm) $2.50 (after 6pm)	2 hour	$0.25	None	$0.25 - $1.00 (first 1.5 hours free)
San Jose	$2.00	1-2 hours	$1.00	1-2 hours	$3.00 (or a flat rate between $5.00 - $20.00)
Burlingame	$1.00 (first hour) $2.00 (second hour)	2 hour	$1.00	1 hour	$0.50 - $1.00 (or a flat rate between $1.00 - $3.00*)
			$0.25 (per 50 min)	10 hours	

*The City of Burlingame offers a number of long-term/employee parking lots with flat daily rates of either $1.00 or $3.00 for the day (up to 10 hours).

Flat Hourly Rate

A flat hourly rate means that the same rate is charged for each hour of the parking session, regardless of location, time of day, day of week, or any other factor. This rate model can be combined with time limits to ensure turnover. If the City were to proceed with this rate model, it is recommended that the City charge at least $1.50 per hour with a 2-hour time limit on-street. A rate of $1.50 per hour is fairly consistent with the hourly rate charged in nearby municipalities (see Table 6). Additionally, based upon the current monthly permit rate of $56.00, a part time employee would be spending approximately $0.70 per hour based upon a 20-hour work week. Therefore, to effectively discourage employees from parking on-street, a higher rate is required. Regardless of the rate chosen, it is important to ensure that low-income employees have an affordable alternate option for parking. More information on employee permit parking is contained within Section 4.8.

A $1.50 per hour rate is high enough to discourage long-term parking, but it is also low enough that it may not discourage visitors and customers from coming to downtown Mountain View. The benefit of a flat hourly rate is that it is simple to communicate and understand. However, without any tiered pricing structure or variations in price, it does very little to change behavior. Therefore, if this flat hourly rate is implemented, it is possible that the existing occupancy trends would remain fairly similar, with most drivers continuing to favor the prime parking locations.

If the City were to charge $1.50 per hour for all proposed on and off-street paid parking locations, it is estimated that the Year 1 revenue would be $1,024,000 from on-street parking and $959,000 from the off-street parking lots. This estimate is based upon a 75% occupancy rate, 60% compliance rate, 8:00 a.m. to 5:00 p.m. hours of operation on weekdays, and extended operating hours until 8:00 p.m. on weekends. Additionally, this estimate assumes that 50% of the off-street spaces are occupied by permit holders. Based upon these estimates, the City's parking revenue would pay for the proposed paid parking equipment and operating costs completely within the first year.

Zone-Based/Tiered

It is recommended that the City implement a zone-based or tiered parking rate model downtown. In a zone-based model, rates are adjusted by zone, and zones are typically created based on parking demand. Rather than blanketing the downtown with the same rate model, as described above, this tiered rate model would give the City more flexibility to influence driver behavior. By offering a lower rate in the more fringe or remote locations, this rate model can encourage longer-term parkers to utilize the parking locations that are traditionally less desirable. Setting a higher rate in the prime parking locations can also help encourage more turnover and is more conducive for shorter visits. In the case of Mountain View, it is also important to combine this rate model with time limits to ensure turnover.

The City of San Mateo is an example of a nearby agency with a tiered/zone-based rate structure. Parking is enforced in San Mateo Monday through Saturday from 8:00 a.m. to 6:00 p.m. There is no charge for parking after 6:00 p.m. There are two zones: the orange zone is the central area and the green zone includes the perimeter areas (see Figure 9). The

orange zone costs $1.50 per hour with a 3-hour time limit, and the green zone costs $1.00 per hour with the same time limit.

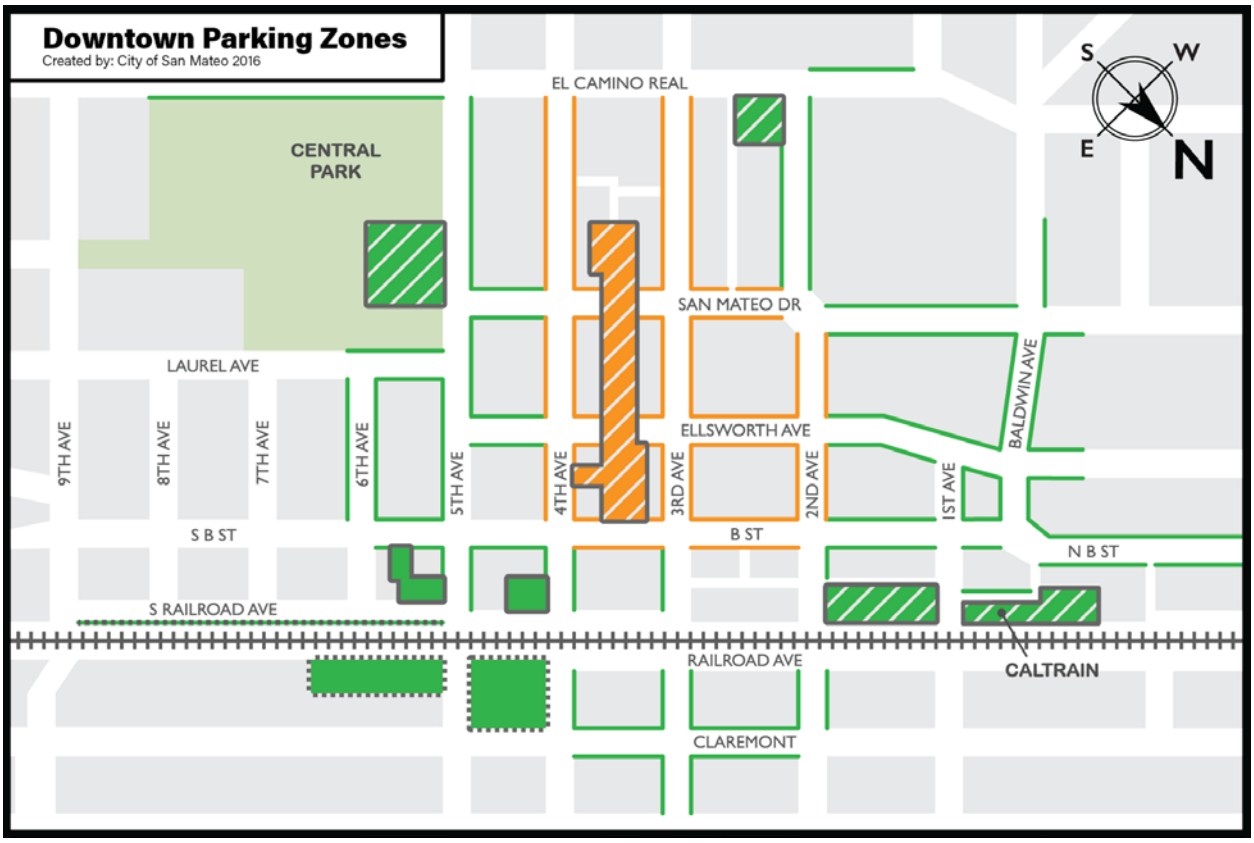
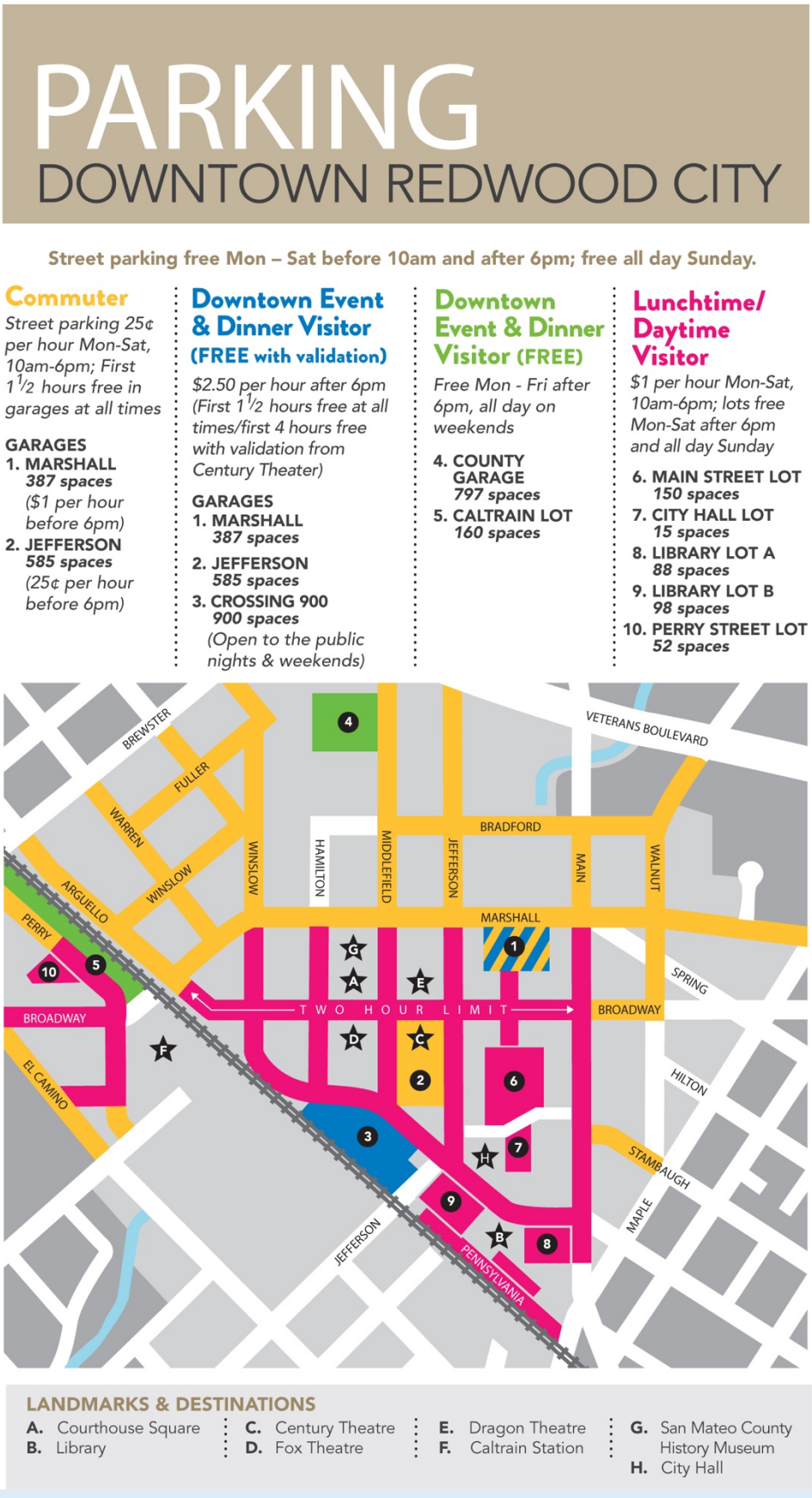


Figure 9. City of San Mateo Paid Parking Zones

The City of Redwood City uses a similar zone-based rate model as well. In Redwood City, the on-street parking is divided into zones based upon their intended uses. The core downtown area (pink zone) is priced at $1.00 per hour. This is intended for lunchtime and daytime visitors, and has a 2-hour time limit. The perimeter areas (orange zone) are priced at a reduced rate of $0.25 per hour, with the first 1.5 hours free in the garages. This parking, because it is less convenient, is intended for commuter and employee parking.

Figure 10. Redwood City Paid Parking Rate Model Map



The City of San Jose also has a similar model. In San Jose, the on-street metered parking within the downtown core is priced at $2.00 per hour, versus $1.00 per hour outside of the core. Most metered parking in San Jose is limited to either 1 or 2 hours.

The key for this type of rate model to be effective is that the tiered rates must be clearly communicated and easy to understand. San Mateo and Redwood City are effective examples of this—the provided maps are easy to understand, and the rate model is simple to communicate. While San Jose doesn't provide a map online, the rate model is also simple to communicate.

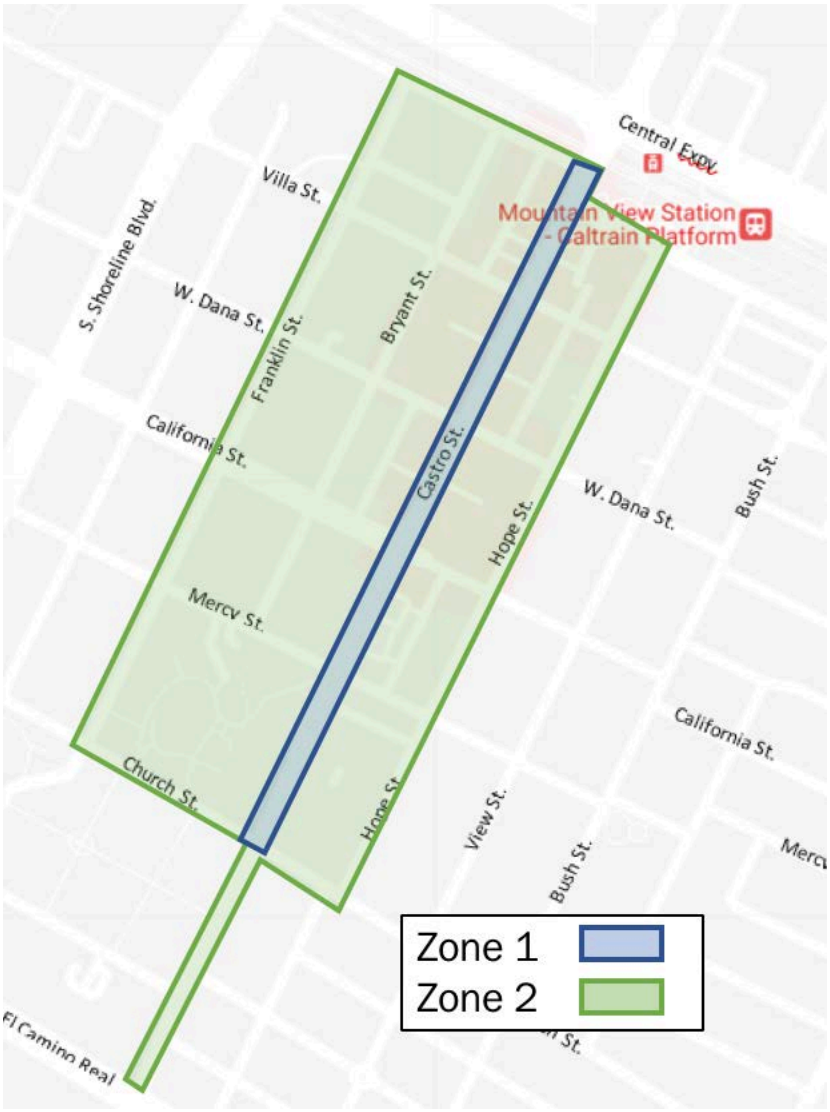


Figure 11. Recommended Parking Zones

For this reason, it is recommended that the City implement a 2-zone system for simplicity. In Mountain View, Zone 1 could include Castro Street between the Central Expressway and Church Street and charge a premium rate of $2.00 per hour with a one or two hour time limit. Zone 2 would be the surrounding side streets. A map of the proposed zones is below in Figure 11. Zone 2 could charge a discounted rate of $1.00 per hour with a two hour time limit. This is the recommended rate structure that should be implemented by the City as it prioritizes on-street parking turnover in the premium locations while providing more affordable options for spaces that are not located along Castro Street. In this scenario, the City could also consider charging $1.00 or $1.50 per hour in the off-street locations, but with a longer time limit.

Table 7. Recommended Zone-Based Rate Structure and Time Limits

Zone	Hourly Rate	Time Limit
Zone 1	$2.00	1 or 2-hours
Zone 2	$1.00	2-hours

The recommended rates are meant to serve as a starting point for the City. These rates are based upon the hourly rates currently being charged in the comparable cities, as outlined in Table 6. Ongoing monitoring of occupancy and turnover data will allow the City to determine whether adjustments to the hourly rates or time limits are necessary, consistent with reaching the 85% occupancy target.

If the City were to charge the above recommended rates, it is estimated that the Year 1 revenue would be $1,360,000 from on-street parking. This estimate is based upon a 75% occupancy rate, 60% compliance rate, 8:00 a.m. to 5:00 p.m. hours of operation on weekdays, and extended operating hours until 8:00 p.m. on weekends.

Time of Day/Day of Week

The City could also consider adjusting the parking rate based upon the time of day or day of week. This rate model is common in scenarios where there are extreme occupancies peaks, such as during the lunch or evening rushes. In Mountain View, because there are peak periods, the City may consider charging an escalated rate during these times. However, this can be challenging to communicate to drivers and may not influence driver behavior significantly. For example, most visitors coming to downtown Mountain View on their lunch break will likely not adjust their lunch hours based on parking rates. While this rate model could be effective at maximizing revenue, it does not necessarily influence occupancy trends.

Table 8. Sample Time of Day Rate Model

Time of Day	Hourly Rate
8:00 a.m. – 10:59 a.m.	$1.50
11:00 a.m. – 12:59 p.m.	$3.00
1:00 p.m. – 4:59 p.m.	$1.50
5:00 p.m. – 8:00 p.m.	$3.00

Table 9. Sample Day of Week Rate Model

Day of Week	Hourly Rate
Monday – Friday	$3.00
Saturday – Sunday	$1.50

Escalating/Pay-to-Stay

An escalating or pay-to-stay rate model gives drivers the ability to park for as long as they desire, but at an escalated rate. For example, the rate charged during hours 1 and 2 could escalate to a higher hourly rate during the following hours. When utilized strategically, this type of rate model can encourage longer term parkers to store their cars in more affordable locations, such as off-street lots or remote locations. However, it still gives visitors the option to park on-street for a longer term if they are willing to pay a premium for it. By not using time limits, this provides more flexibility to visitors, but it does not ensure turnover. Another consideration is that without a no re-parking ordinance (see page 35), drivers may shuffle

their cars between spaces every one or two hours to avoid paying the escalated parking rate for a longer stay.

Relying on rates alone to encourage turnover is risky, especially for a community as affluent as Mountain View. This has the potential to create an inequitable parking situation where high-income visitors tend to occupy the convenient spaces for as long as they please, and it may not effectively influence driver behavior. Therefore, this type of rate model is not recommended for Mountain View. Knowing that the occupancy rates are already as high as they are, it is too risky to remove the time limits completely.

The implementation of an escalating rate model also often depends on the use of parking space sensors that can determine whether a vehicle has left the stall or not. Otherwise, someone could park and pay the lower rate for the initial hour(s), and then feed the meter for the second hour (as if it's a new parking session) to avoid the escalated rate. As an alternative, this could be tracked using the license plate numbers in a pay-by-plate scenario, but this requires consistent enforcement to be successful.

Table 10. Sample Escalating Rate Structure

Parking Session Length	Rate
Hour 1	$1.50
Hour 2	$1.50
Hour 3	$3.00
Hours 4+	$4.00

The City of Burlingame is an example of a nearby municipality with an escalating rate structure. Most of the parking meters in Burlingame have either a 2-hour or 4-hour time limit, but the rates also escalate in some cases. On-street parking costs $1.00 for the first hour and $2.00 for the second hour along Burlingame Avenue. The other on-street metered locations have a flat rate of either $1.00 per hour or $0.25 per 50 minutes.

The City of Sacramento's parking program is another example of an escalating rate model. The SacPark program allows drivers to extend their time beyond the posted time limit for a premium escalated rate. This works by assigning a base meter rate for the initial time period, and any amount of time beyond that costs significantly more per hour. Sacramento

Figure 12. SacPark Escalating Payment Guide

also uses Parkmobile for mobile payment, which will automatically remind drivers if the paid

time is nearing expiration. This allows users to remotely extend their time without returning to the meter.

The parking program in the City of Sacramento, SacPark, utilizes several automated technologies to improve efficiency and shrink the program's bottom line. The program operates more than 4,500 IPS single space meters with attached sensors throughout the City. However, the sensors are not without challenges. The City struggled with sensors resetting, a problem recently resolved through firmware updates from IPS, and issues with large trucks resetting meters as they drove past. In addition to their single space meters SacPark installed Parkeon pay-stations for nearly 1,700 on-street spaces and City-run parking lots. The pay stations are either pay-by-space or pay-by-plate and the City is currently phasing out pay-by-space to move toward a completely automated pay-by-plate system.

No Re-Parking Ordinance

The City should also consider developing a "No Re-Parking" ordinance. A 'No Re-Parking' ordinance would prohibit drivers from shuffling their cars on the same block, within a parking lot, or within a structure to avoid time limit restrictions. For time limits to be fully effective, a driver should not be allowed to re-park their car within the same block or zone on the same day or within a defined period of time. This will help ensure that long-term parkers are not utilizing the spaces meant for short-term visitors. Furthermore, employees would be more likely to purchase a long-term parking permit instead of utilizing the short-term spaces meant for customer parking. It is anticipated that currently most re-parking occurs downtown due to service workers that are unable to afford the existing parking permit. Therefore, it is critical that before the City implement a no re-parking ordinance that a low-income service workers permit be offered (see Section 4.8). Some examples of existing no re-parking ordinances are included in Appendix D:

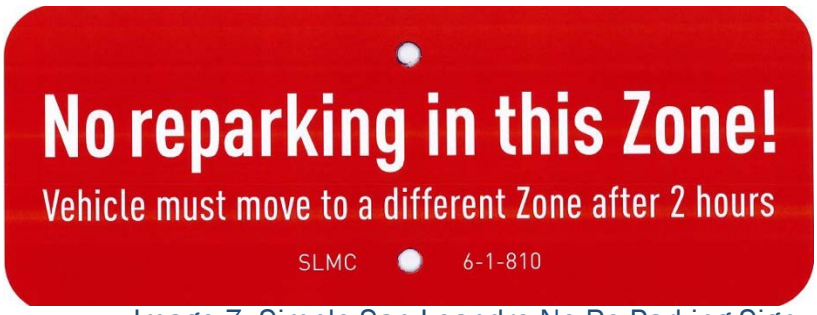


Image 7. Simple San Leandro No Re-Parking Sign (Designed by PICTOFORM)

Based upon industry best practices, the following no re-parking ordinance is recommended for Mountain View.

A. A vehicle may park in a time zone only for a period not to exceed the posted time limit.
B. A vehicle may not return to a time zone in the same block face or within 1,000 feet of where previously parked for a 3-hour period.
C. Upon expiration of the designated time limit, as indicated by posted signage, a citation may be issued if a vehicle remains parked or stopped on the same block face unless:

I. The vehicle has moved 1,000 or more lineal feet, measured along the curb or edge line;
II. The vehicle has moved to an unregulated parking area in the same block face; or
III. The vehicle has vacated the block face for 3 hours.

If the City were to establish various parking zones, such as in the case of a tiered pricing model, then the City should consider utilizing a no re-parking ordinance that is based upon zones rather than the 1,000 foot rule. By prohibiting drivers from re-parking within the same zone, this will make time limits even more effective. This will prevent drivers from parking a block away – instead, they will need to park in a separate zone.

Loading Zones

It is possible to charge for parking in loading zone spaces during non-loading zone hours. If the City restricts commercial loading to before a certain time, paid parking can be required thereafter. This can be communicated through the use of signage, and often times a municipality will choose to use a yellow-colored meter head or pay station wrap to communicate to drivers that it is a loading zone area. Mountain View should consider requiring commercial deliveries before 10:00 a.m. to reduce congestion on City streets during peak periods.

In addition to signage, the City may choose to paint the passenger and commercial vehicle loading zone curbs green and white. If the City decides to paint the curbs, the City should determine the appropriate staff and/or volunteers that will be responsible for periodically repainting them. While curb paint can make the regulated boundaries clearer, this creates demand for additional maintenance and upkeep. Additionally, the loading zone curb paint will make it difficult to adjust regulations during special events and overtime if desired.

4.5. MAINTENANCE AND REVENUE COLLECTIONS

If the City implements paid parking, the City will also need to identify resources to manage a paid parking system both internally through City staff and externally through parking vendors. Several municipalities have maintenance and revenue collections within the Public Works Department, but it is also common for municipalities to cross-train Parking Ambassador staff in these additional duties.

The City also has the option of contracting a vendor to outsource parking meter maintenance and/or revenue collection services. For external parking services managed by parking vendors, there are two levels of maintenance the City should consider. Level 1 maintenance handles (service calls, revenue collections, basic preventative maintenance and responses to service calls (i.e., addressing jammed credit cards). Beyond basic maintenance, Level 2 maintenance is typically managed by the parking technology vendor when the meter cannot be serviced in-house. This requires the City to send the broken meter to the vendor for repairs. The City should be sure to have adequate spare parts in stock for repairs.

The frequency of revenue collections will depend on utilization. Meter revenue should be collected at least once per week as a starting point. The revenue collections schedule can be reassessed once demand and utilization are fully understood. The paid parking technology software is also able to notify staff of any maintenance issues and collection requirements. While this is a helpful tool, the City should not rely solely on the parking software. It is recommended that maintenance staff visit each location at least once every two weeks to ensure that there are no unidentified issues such as graffiti or vandalism.

It is recommended that any paid parking technology be configured to minimize maintenance and revenue collections. The installation of smart parking meters that can accept credit/debit cards will reduce the amount of payments by coin. Additionally, providing a mobile payment option is another added benefit to discourage the use of coin. Ideally, the City should minimize the number of pay stations with bill note acceptors (BNA), which will reduce the level of maintenance. The City should also consider how the hourly rate will influence coin usage. Ideally, the hourly rate should be at least $1.00 per hour.

Image 8. Medeco Electronic Lock

When the City procures meters, electronic locks (e-locks) such as the Medeco electronic locks should be included. E-locks are an electronic key system that are programmed for the daily collection routes. This adds another layer of security for the City. Typical key systems are less secure because there is no electronic record of use. Additionally, if there is any meter theft, this can result in the City needing to re-key the meters.

Image 9. IPS Secure Coin Collection Cart

A closed-canister (closed-can) system for single-space meters is also recommended. This means that the coin canister located inside the meters is retrieved by collection staff, inserted and emptied into a larger collection can without the monies ever being exposed. This is considered an industry best practice because it reduces opportunity for revenues to be siphoned away.

Smart meters have a back-end software system that will allow the City to compare the amount of money recorded by the meters versus the amount of money collected and counted. Additionally, the amount counted by the City should always be verified against the amount recorded by the bank once submitted. When the City expands the paid parking operation, there should be tight controls and procedures in place. Ideally, the meters should be collected based upon consistent routes, and the counted monies should be traceable back to specific pay stations, meter routes, and collectors. This will allow the City to compare revenue trends over time for both predictive purposes and for added security. Any abnormalities in trends should be investigated.

The City should consider hiring 2 full-time maintenance and collections technicians. These positions could either be staffed internally or contracted out, depending on the City's preference and overall management structure. Two positions will likely be sufficient to meet the needs of the City. However, the cross-training of Police Assistants is also recommended to provide further support and coverage, especially in cases when the technicians are unavailable. It is anticipated that maintenance and revenue collections staff support will be fully funded by paid parking revenue.

The City could also consider outsourcing maintenance and collections to a third-party service vendor. The City could consider this in conjunction with or separately from the outsourcing of enforcement. Both options should be assessed for their feasibility and cost savings benefits to determine if the solution is right for the City.

4.6. PARKING BENEFIT DISTRICT

If the City decides to implement paid parking, the establishment of a Parking Benefit District (PBD) is recommended. As referenced earlier, the City already has an established Parking District in downtown. This district is used to define who is eligible to participate in the downtown permit parking program. Optimally, the existing Parking District could be incorporated into a new PBD. A centralized approach will minimize confusion, and allow for coordinated parking management, marketing, and outreach. If this is not feasible, defined policy for how monies generated are to be allocated must be distinguished within the authorizing regulations. Available parking management tools will allow the opportunity to distribute monies into different designated funds automatically from the parking meters based on the specific locations or zones. The primary objective of a PBD should be consistent and clear communication of parking policies to the Mountain View community.

The parking program in Mountain View should be self-sustaining, with a portion of the revenue reinvested into the downtown. Stakeholders and survey respondents typically favored that surplus revenue be invested in walkability and pedestrian improvements, public transportation and alternative modes as wells as better bike access and parking. A PBD would allow revenue from permit fees and paid parking to be directed into a Special Parking Fund. PBDs have been successfully implemented in many municipalities to help fund special projects and program improvements. Program improvements could include, but are not limited to, improved enforcement, technology, security enhancements, signage, multimodal transportation improvements (i.e., bicycle parking, walkable street design, shuttles and TDM programs), and maintenance. An oversight committee should be established to define goals and allocate funds.

The Downtown Committee is an already established group in the City that is tasked with making recommendations on the development and maintenance of parking facilities. The committee could take on the added responsibilities of allocating paid parking revenue within the benefit district. Predefined goals and objectives will create a level of transparency for the allocation of the funds.

Table 11. Sample Revenue Distribution Schedule

Revenue Allocation	Percent
Operating Costs • Equipment • Personnel • Ongoing Maintenance and Upkeep	35%
Parking Program Improvement • Technology • Parking Supply • Wayfinding • Safety/Security	40%
Transit Alternative Programs/ Discretionary • Shuttle Route • Bike Share • Based upon Council approval	25%

4.7. ENFORCEMENT

Currently the City uses police assistants (PA) and community service officers (CSO) to enforce parking regulations in Mountain View. The City currently staffs 4 PAs, 6 CSOs and 1 supervisor, a Police Sergeant, who handles most of the day-to-day parking enforcement in the City. The PAs are the primary parking enforcement officers for the City while CSOs handle vehicle abatement, oversized vehicles, and towing of vehicles. On occasion, PAs are tasked to aid with street sweeping and clean-up days with Public Works, but their main priority is parking enforcement. PAs are not responsible for assisting with traffic control or complaints registered by community members.

The PAs work 4-hour shifts from Monday through Friday and do not have established routes. Instead, they enforce in problem areas that have repeat patterns of parking abuse. Variations in PA schedules result in light coverage during some parts of the day. A number of stakeholders admitted to frequently parking beyond the posted time limit without receiving a citation. If the City shifts enforcement hours later in the day or extends them to weekends, an additional one or two PAs would improve enforcement coverage. Regardless, the addition of a fifth PA would help the department close schedule gaps and provide more consistent coverage throughout the day even if hours of enforcement are unchanged. Ideally, PAs should have set routes that ensure consistent coverage within their enforcement areas. Cyclical routes should be established to allow for a minimum of three to four patrols per shift for each enforcement area. An increase in citation fees may also serve to deter frequent abuse of parking regulations.

The City should take a compliance-based Parking Ambassador approach to enforcement. A compliance-based approach includes issuing warning notices before citations for first-time offenders, educating parkers on regulations, and answering customer questions. Often times parking enforcement staff may be the only interaction that visitors have with City employees, so they should be a positive representation for the community. The Parking Ambassador approach puts a positive spin on the parking-enforcement/public interaction.

Current training for PAs is done by the Police Sergeant, CSOs, and Senior PAs. Training consists of multiple ride-alongs and Police Department tactical training for conflict resolution. The department should create a training manual with detailed job guidelines, policies, and procedures for parking enforcement staff. This should cover all aspects of the enforcement, maintenance, and revenue collections work. A manual of policies and procedures is necessary for PA guidance and direction. A manual is not simply about personnel issues; it is also a "how to do the job" guideline, detailing enforcement policies so that every officer enforces in the same manner with the same compliance-based approach to enforcement.

The PAs can also be trained to provide Level 1 maintenance and revenue collections for the parking pay stations or meters if the City implements paid parking. Level 1 maintenance is basic and preventative maintenance that is typically handled by City staff. Other maintenance support can be provided by the vendor.

The City can also consider outsourcing parking enforcement support services. This approach requires the City to establish the number of labor hours, uniforms, equipment, vehicles, and any office space needed to support the City along with the specified enforcement services. Most vendors will offer an existing employee transition program, subject to minimum qualifications, background checks, and specified hiring criteria. The City could specify this approach in any solicitation. Private parking operators offer both union and non-union labor. The City can specify this requirement. The type of labor will impact the cost of the enforcement support services. The City Attorney should confirm the ability to outsource enforcement services. This approach should be evaluated for feasibility and its degree of cost savings.

Turbo Data Systems

Parking enforcement staff are currently provided Samsung G5 handhelds that operate Turbo Data System's (Turbo) citation issuance software, connected via Bluetooth to printers. In general, the PAs have not had many issues with the existing citation issuance devices. Electronic citations ease the burden of the required management support as well as provide violators with immediate and accessible payment options. Violators are able to access, appeal, and pay their citations online through Turbo's pticket portal. Turbo currently handles the contested hearing process for citations issued by the City.

Currently, the Police Department calls Turbo to develop custom reports. Typically, with a citation management vendor there is a backend portal to allow City staff to run and build reports. The City should work with Turbo to ensure that staff has access to the backend reporting system and are fully trained and aware of product features.

The City should assess the opportunity of leveraging the existing Turbo contract for an automated permit management system. Automating the permit management system would allow PAs integrate permit data with the enforcement technology. More information on permit management is in Section 4.8.

License Plate Recognition

License Plate Recognition (LPR) technology can significantly improve enforcement efficiency, especially for time limit management. Rather than relying on physical chalking, the LPR cameras can automatically track license plate reads based upon their GPS location and notify the PA when there has been a violation. Additionally, if parking permits become license plate-based, and if any future parking pay stations are configured for pay by plate, then the LPR can efficiently verify valid payment status. Other databases can also be integrated with the LPR system for enforcing scofflaws and stolen or wanted vehicles.

LPR also has the added benefit of providing occupancy and utilization data. Data can be exported to Excel for ongoing analysis and review. The City could develop a data collection plan with fixed routes, days, and hours. Collecting data with LPR would be a cost effective way for the City to understand on and off-street occupancy and utilization trends, which would allow for data-driven decisions about potential time limit and rate adjustments.

In order to more effectively and consistently enforce time limits throughout downtown, is it recommended that the City purchase 2 mobile LPR systems. The City currently has 3 Go-4

vehicles available for PAs. The LPR systems can be mounted onto the vehicles, along with

Image 10. Genetec LPR Camera Mounted on City of Davis Enforcement Vehicle

the inclusion of a laptop for the LPR software.

LPR technology has become a common and useful parking management tool. It is imperative to understand that LPR for parking utilizes cameras to process images to identify vehicles for enforcement of permit policies and time limit regulations parking regulations. Public agencies must post LPR policies online that define the use of data. For the purposes of Mountain View, license plates would not be retained other than citations issued for adjudication purposes. Otherwise, information gathered is converted into data point for analysis and reporting. There are parking management alternatives, however they are not as effective or efficient as LPR, and the alternatives rely upon traditional means of enforcement like physically checking tires or requiring parking enforcement personnel to look up and match license plates to permit lists.

LPR can be expanded to include scofflaw lists that will allow the City to identify delinquent vehicles with 5 or more unpaid parking citations. Additionally, the City can also consider expanding the technology for use by the Police Department to identify license plates connected to a crime or a person of interest. As an enforcement device, LPR cameras are attached to enforcement vehicles that patrol both streets and parking lots and can be used to manage parking violations, occupancy limits, scofflaw capture, and paid parking payment status.

There are several vendors that provide specialized parking LPR technology for enforcement. Many systems have developed their software to integrate with the citation and permit processing vendors in order to provide municipalities with a comprehensive program customized for their needs. LPR provides enforcement with visual (photo and/or video) evidence of a parking infraction to support adjudication. Some LPR systems have the ability to flag a violation and immediately 'push' or send citation information to an enforcement officer currently patrolling the streets. This process allows the parking enforcement officer on the street the ability to issue a parking citation at the time it was flagged. Additionally, many vendors offer 'digital chalking' which uses software technology to track how long vehicles are parked in a specific area and simultaneously compare that to the time limit posted in that area. This particular feature has helped several cities provide a more accountable and consistent timed zone enforcement program without the need to invest in additional labor.

From an employee morale standpoint, it also provides a direct benefit to the enforcement officer by removing the physical chalking requirement, managing the marked timed zones and alerting the officer of an enforcement ready zone. Additionally, LPR mitigates a chronic problem faced by a number of agencies when patrons physically 'remove' chalk marks from tires. The LPR solution provides a documented record of the vehicle location and time/date stamp when the vehicle was initially identified and the resulting violation confirmation time/date stamp that will support the adjudication process.

The Northern California Regional Intelligence Center (NCRIC) has become a resource for regional municipalities to safeguard the city by providing a data storage resource. Several local agencies have integrated their LPR systems with this program to ensure privacy and the security of the LPR system.

Booting

The City does not currently boot for scofflaw violations. The City should consider booting as a more efficient alternative to towing because it improves officer efficiency and safety. The traditional boot is being replaced with more innovative, automated, and customer- convenient options. Officer safety is always a concern during any boot release. If the City assumes booting responsibilities, there are two immobilization devices that the City should evaluate and consider that specifically address the issue of officer safety - Paylock SmartBoot and the Barnacle.

Image 11. Paylock SmartBoot

Each of these immobilization devices provide a self-release service feature that allows the customer to manage delinquent citation payments and do not require enforcement officer field presence to complete a transaction. This minimizes wait time and mitigates the often harsh exchange that can occur when the traditional boot is removed from the vehicle.

The Paylock SmartBoot looks just like a traditional boot, however, with

embedded electronics that allow for programmed release. When a scofflaw is identified by a Parking Enforcement Office (PEO), the SmartBoot is deployed by attaching it to the wheel. The violator can contact customer service immediately and pay the designated penalties due to the City. Prior to the payment process, the violator must acknowledge the financial responsibility to return the SmartBoot to a designated location. A credit hold is placed and if the equipment is not returned within the specified timeframe (typically 24 hours), the specified value is processed to the violator. The values range from $500 to $750 and equipment return compliance is high.

While also equipped with a violator release feature, the Barnacle is attached to the windshield rather than the tire. This is another enhanced opportunity for officer safety because, rather than bending down to attach the boot, the Barnacle can be attached to the windshield from the curbside. Industrial suction cups adhere the device to the windshield thereby obstructing the driver's view. The Barnacle is GPS-enabled and includes an anti-tamper alarm. Same as the SmartBoot, a violator must acknowledge financial responsibility for the device and, if not returned, they will be charged for the device at a price similar to the SmartBoot.

Image 12. Barnacle Windshield Immobilizer

Both solutions are a tremendous innovation to the traditional booting process. It is recommended that if the City assumes booting responsibilities, either of these options should be considered to more efficiently manage the process. Each of these solutions provide a management system that will automatically send a notification if an immobilization time limit is defined in the system identifying when a vehicle should be towed. The City can determine if this notification should be sent directly to the tow company or if an officer should solicit the service.

4.8. DOWNTOWN PERMIT PARKING

The City offers Downtown Parking Permits for businesses, their employees, and residents located within the Downtown Parking District. These hangtags can be purchased on a daily, monthly, or annual basis. Parking permit holders may park up to eight hours per day in designated downtown lots and parking structures by displaying permit hangtag. Permits are valid in Parking Lots 6, 7, 9, and in both parking garages. Permits cost $56 per month, $112 per quarter, or $336 per year.

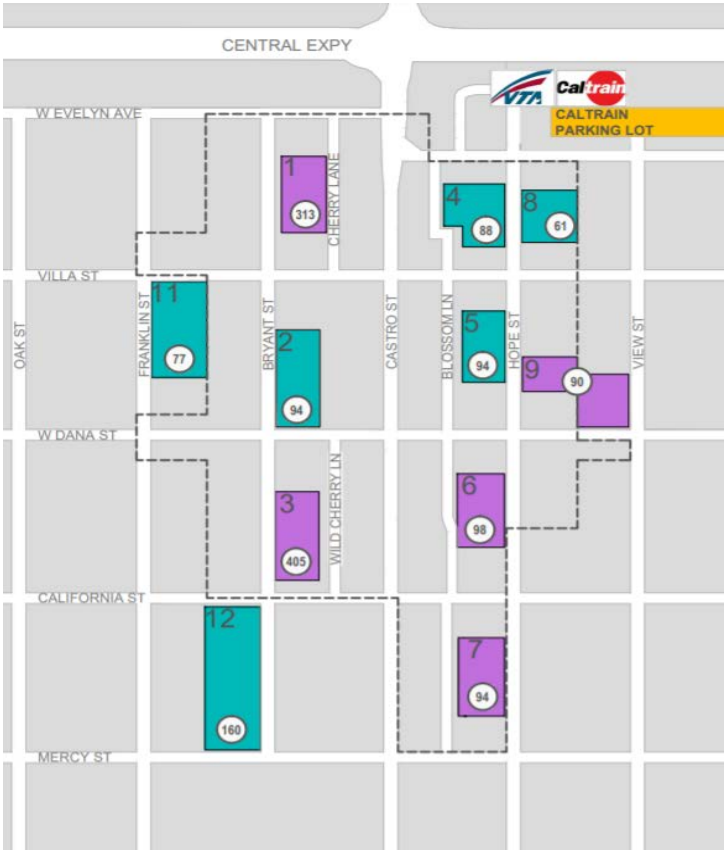


Figure 13. Downtown Parking District Map

During stakeholder outreach, many downtown employees reported that parking permits are cost prohibitive. They reported that they cannot afford to pay $336 for the year up-front, and $56 per month is too high. In fact, employees that choose to pay per month pay $672 annually for permits, double the price of the up-front annual permit. In the case of employee permits, it does not make sense to penalize employees who choose to purchase on a monthly basis versus an annual basis. The goal of the program should be to ensure that employees have an affordable alternative parking option.

Currently, the City is manually tracking and managing the permit program. Permits can be purchased in person through the Finance and Administrative Services Department or through the City's online portal. There are not separate hangtags for employees or residents. Ideally, the City should have separate programs for employees and downtown residents, with separate documentation required to qualify for each. Currently, anyone within the Parking District can apply for any of the permit types. The existing permit portal does not require applicants to upload supporting documentation for proof of employment or residence. The existing verification system does not prohibit applicants from submitting payment online prior to document review, leaving the program open for potential abuse.

Additionally, there is no limit or cap on the number of permits allowed per address or per employee. The City should be tracking utilization to ensure the appropriate level of oversell. The City can oversell the permits, meaning that the number of permits sold exceeds the number of permit parking stalls. An oversell is recommended in order to optimize the use of

space. This is because it is unlikely that every permit holder will require parking at the same time. However, without proper oversight and management, it is possibly that permit holders will be unable to find available parking. The City should closely monitor permit sales and utilization to determine the appropriate oversell amount.

Before the City considers implementing paid parking, it is critical that the employee permit parking program be updated first. It is recommended for the City to transition to an automated permit management system. The cost of permit management systems are dependent upon program features. The City should leverage their existing citation processing agreement with Turbo Data Systems and consider expanding the services to include permit management services that include online customer service tools. Additionally, there are a number of other vendors that can be considered to automate the program and integrate with the City's existing and future enforcement technology. Regardless of the selected vendor, the City should continue to offer an online portal. Several municipalities have incorporated this service for one-time costs of less than $12,000 with annual costs based upon the number of permits managed and the services provided. Other municipalities have run solicitations for integrated parking management systems that include citation and permit management and the pricing varies based upon the project size and scope of services requested. Communities like Glendale and Santa Monica recently executed contracts for approximately $300,000 per year to support their citation and permit management needs.

Applicants should be required to submit proof of employment to qualify for a permit. Proof of employment can include a recent paystub or a letter from an employer, for example. The supporting documentation should be reviewed by an administrator and approved prior to accepting payment from the applicant. A vendor system will also allow the City to ability to set a cap on the number of permits with a wait list capability.

It is also recommended that the City transition to the use of digital permits. With digital permits, the license plate number becomes the permit identifier for enforcement. Digital permits will allow the City to efficiently enforce with the use of LPR technology. This will be more efficient than the visual verification process currently required with the hangtags.

The below table includes the annual parking permit rates for a number of nearby municipalities. In comparison to the City of Mountain View, the surrounding locations charge significantly more per year. The City of Mountain View should consider raising the permit cost to be more consistent with the market rate. It is recommended that the City raise the permit rate incrementally on an annual basis, eventually reaching an annual rate between $650 and $1,000.

Table 12. Employee Permit Rate Comparison

Location	Annual Employee Permit Cost
City of Mountain View	$336
City of Palo Alto	$750
City of Redwood City	$480 - $1,200
City of San Jose	$1,200 - $1,500
Average	$641 - $965

In addition to raising the rates, the City should offer employees the ability to purchase on a monthly, quarterly or annual basis, without a variation in price. This means that the monthly and quarterly rates should not amount to more than the annual rate. The annual purchase option is simply for convenience. The ability to purchase on a more frequent basis is a customer service option to allow participation by employees who may not have the ability to purchase the entire year up front.

Along with the revised rate structure, one critical recommendation for the City is the establishment of a low-income/service worker permit option. It is critical for the success of a downtown that low-income employees have an affordable option for parking. The City should establish an income threshold for qualification and with proof, employees could qualify for a reduced permit rate. It is recommended that the City charge no more than $100 per year for qualifying users. For reference, the City of Palo Alto offers an annual for a $100 to employees with an annual income of $50,000 or less. Similarly, the City could consider offering discounted transit passes, bike subsidies, or other programs for reducing the cost of transportation options for low-income employees. Maintaining downtown employees at all pay scales is important to the success and vibrancy of downtown Mountain View.

Locations

Due to its rapidly densifying commercial spaces, the City may consider designating some parking as employee only. Presently, employees compete for parking spaces with other employees and residents of downtown as well as non-permit holders. When downtown lots become full, employees are forced to utilize on-street parking, which, under ideal circumstances, should remain available for customer parking. A third of the employees surveyed said that they parked on-street and 83 percent said that they parked two blocks or closer to their workplace, indicating that employees may be utilizing valuable customer parking. Currently, the locations where permit parking is allowed are evenly distributed throughout downtown and intermixed with public hourly parking. The City should consider designating certain periphery lots for permit parking only, which would free up the downtown spaces currently being used by permit holders for visitors. This approach would be most effective in conjunction with the implementation of paid parking because otherwise the permit holders could still park in the public parking spaces free of charge. Paid public parking will incentivize the permit holders to park in the designated permit parking locations. By dividing the permit and public parking supply into separate lots or designated sections within each lot, this will improve enforcement efficiency and make it easier for the City to track utilization.

The City may also want to consider locating parking, that could be made available for permit parking, farther away from downtown. If the City chooses to have remote employee parking it would need to provide a way for employees to get to and from their workplace in a reliable, convenient, and safe manner. The addition of a remote employee parking lot would remove the necessity for permit parking downtown and provide more parking supply for residents and visitors.

4.9. RESIDENTIAL PERMIT PARKING

If the City considers a paid parking program in downtown Mountain View, it will be important to consider safeguarding the surrounding neighborhoods with a residential permit parking program to prevent spillover parking. The City's Downtown Parking Permit program is available to downtown residents within the Parking District boundaries. The Downtown Parking Permits can be purchased by residents or employees, and permit holders are eligible for all the same permit parking areas. Currently the City does not have a cap on the number of permits that it issues within the district. This creates the opportunity for residents to store an unlimited number of multiple vehicles in municipal parking lots all day long. Other than the 72-hour rule in the vehicle code, there is not a way for the City to prohibit long-term vehicle storage by residents. It is recommended that the City restrict the number of permits to 1 or 2 allowed per address. If the City allows multiple permits, then an escalating price structure is recommended; the price of the second permit should be higher than the first to discourage residents from owning multiple vehicles.

The City's Public Works Department also offers a residential permit parking (RPP) program[1] for the surrounding neighborhoods where an area may qualify for designation as an RPP Zone upon submitting a petition if the proposed area and meeting a variety of requirements (i.e., minimum number of blocks, support by a majority of the residents). During stakeholder outreach, some residents mentioned that the process of implementing an RPP zone is too challenging. They described the two-step process of getting neighborhood approval as cumbersome.

If the City implements paid parking downtown, residential neighborhoods may experience additional spillover from drivers looking to avoid paying for parking. The City should educate residents about existing RPP programs and any future changes to these programs prior to implementing paid parking downtown. While a residential permit program may not be required for everywhere around downtown, residents should be prepared with the ability to enact the program if desired.

[1] https://www.mountainview.gov/civicax/filebank/blobdload.aspx?BlobID=23144

Paid Parking Implementation

Near-Term Steps

1) Consider budgeting for 2 full-time maintenance and collections technicians. These can be staffed internally or outsourced.
   a) Develop job descriptions and begin hiring process prior to implementation of paid parking.
2) Develop a Parking Ambassador approach to parking enforcement. Adjust training information and procedures to align with a customer-service focused approach to achieving compliance.
   a) Adjust job descriptions as required.
3) Budget for 1 or 2 additional PA positions based upon the potential expansion of enforcement hours.
4) Assign PAs, under general supervision, to patrol their assigned areas to enforce parking regulations and ordinances, maintain records, and issue citations.
   a) Examples of duties include observing vehicles for parking violations, issuing citations, operating computer equipment and handhelds, filling out data fields related to code violations and VINs, acting as an ambassador to the public to answer questions, and notifying police when appropriate.
   b) Cyclical enforcement beats, or routes, should be established to allow for a minimum of three to four patrols per shift for each enforcement area.
5) Involve the Police Department and parking enforcement staff in any enforcement technology vendor demonstrations, specification reviews, and the selection process. This includes any future solicitation for citation management software, handheld devices, boots, and license plate recognition technology.
6) Consider raising the parking citation fine amounts to encourage compliance with posted regulations.
7) Consider using boots or windshield immobilizing devices to enforce scofflaws.
8) Coordinate with Turbo on any additional training that may be required for staff to utilize the backend reporting system.
9) Draft and issue a RFP for LPR technology.
   a) Ideally the City would have two units to maximize coverage and efficiency.
   b) A single unit would still provide increased efficiency to enforcement staff but may not be enough to effectively cover the entire parking area.
   c) Install LPR on Go-4s
10) Use the Revenue Modeling Workbook to determine the optimal rate model and forecast revenue for on-street and off-street parking in the City.
   a) It is recommended that the City always utilize an on-street hourly rate that is higher than its off-street hourly rate. This will encourage longer-term parkers to store their cars off-street, and it will encourage increased turnover in more convenient on-street spaces.
   b) Based on the Paid Parking Revenue Modeling Workbook projections and suggested rate model, the City will likely be able to fund the proposed paid parking equipment in less than one year.
11) Review and update the City ordinances for the viability of paid parking and parking benefit districts in the City.

a) Define the distribution schedule for paid parking revenue. This step should be incorporated into the planning of a Parking Benefit District as outlined in Section 4.6.
b) Develop a "No Re-Parking" ordinance.

12) Evaluate the feasibility of PBD in Mountain View.

13) Adopt necessary ordinances to support a PBD program.
a) Establish an authorized oversight committee, such as a Parking Advisory Committee (PAC), or this could be the Downtown Committee.

14) Define the revenue distribution schedules. A set of predefined allocation rates will ensure transparency for the community and will allow for a series of community and program improvements.

15) Leverage existing Turbo agreement or release an RFP for an automated permit management system. The permit management system should be integrated with the City's citation management technology.
a) Proof of employment should be required.
b) The permitting system should be fully digital, based on license plates.
c) The City should allow for monthly, quarterly, or annual purchases at a consistent rate.

16) Audit existing permit program to compare permits sold versus permit parking supply. Based upon existing operation, the City may need to establish additional permit parking locations. Ideally, permit parking should be in more remote locations rather than in the downtown core.

17) Implement an automated permit management system in conjunction with the employee permit program updates.

18) Implement the employee permit parking program as described in Section 4.8.

19) Begin education and outreach for the upcoming implementation of paid parking in the City. This should include notification of the planned rate structure and how to use the paid parking equipment. Outreach should also include information about the residential and/or employee parking zones and their restrictions. Outreach should include both print and online materials. If the City implements a resident discount program, the education and outreach campaign should inform residents about the application process and requirements.

20) Consider a paid parking pilot program along Castro Street. Parking technology vendors typically offer municipalities a 60-day pilot to test their equipment solutions. The upfront costs would include shipping, installation, training, paper (if applicable) and software fees. If the pilot is successful, the City would have the opportunity to purchase the paid parking technology at a discounted rate or begin a 3-year leasing agreement.

21) Draft and issue a Request for Proposal (RFP) for paid parking technology. Equipment should primarily accept credit/debit card only and pay stations should be in the 'Pay by Plate' configuration. The vendor solicitation should be a turnkey solution that includes the following services:
a) Communications testing
b) Installation
c) Level 2 maintenance support (see Section 4.5)
d) Signage
e) System testing

22) Prior to the implementation of paid parking, establish a low-income/service worker parking permit program.

23) Consider restricting commercial loading in the City before 10:00 a.m.
24) Consider updating the municipal code to make the residential petitioning process user friendly for residential neighborhoods.
25) The City should establish an educational outreach campaign will be necessary to safeguard the neighborhoods and prevent spillover parking.
26) Investigate TMA membership options for downtown businesses or downtown specific TDM programs.

Mid-Term Steps

1) Adjust the employee permit rates to be consistent with the market rate. Adjustments should be made incrementally.
2) Identify an internal resource, such as a Parking and TDM Manager within the City to oversee the whole program or PAs, to handle Level 1 maintenance and revenue collections. City staff should be trained by the paid parking vendor(s) on how to respond to common service calls and how any monies are securely collected.
    a) Consider hiring full time staff dedicated to maintenance and revenue collection for parking meters.
    b) Staff should be trained by the paid parking equipment vendors.
3) Establish a protocol for paid parking collections and revenue reconciliation. The technology will keep track of the deposited money. Therefore, the amount of cash and coin collected and counted should be cross-referenced with the meter management systems to ensure that all the monies are being reconciled. It is important that the paid parking collection process is securely managed.
    a) Equipment keys should be stored securely, key access should be monitored and only a limited number of staff should have authorization to access paid parking keys.
    b) Revenue counting and reconciliation procedures must be established and monitored by designated City accounting staff, including:
        i) Cash and coin counting processes.
        ii) Credit card variance and verification.
        iii) Deposits into a City bank account.
    c) There are cases where the improper use of the paid parking technology may result in a minor variance. An acceptable variance threshold should be identified upon implementation and then re-evaluated 90 days after initiation.
4) Hire 1 or 2 additional PAs.
5) Depending on the implementation of paid parking, consider assigning PA responsibility for preventative maintenance and revenue collections.
6) Ongoing training with any new or upcoming enforcement technology procured by the City.
7) Consider the potential cost-savings of outsourcing parking enforcement and whether it would be a benefit to the City.
8) Utilize LPR for ongoing occupancy and turnover data collection.
9) Establish a data collection plan with fixed routes.
10) Implement paid parking equipment in Mountain View.
11) Issue an RFP and select a vendor to implement mobile payment as another payment option. The mobile payment application should be branded with the City's parking brand.
12) Consider paid parking in loading zones after 10:00 a.m.
13) Establish a limit on the number of downtown resident permits allowed per address.

14) Establish a permit parking program for the City Hall garage with the use of a validation program and PARCS.
15) Ensure that any paid parking equipment is configured to minimize revenue collections and maintenance. Meters should ideally have secure coin canisters and electronic locks for added security.

Long-Term Steps

1) Ongoing monitoring of permit program utilization to determine necessary adjustments to permit price and caps.
2) Conduct occupancy monitoring on a bi-annual basis to determine any necessary rate or program adjustments. Active monitoring can help ensure program efficiency by keeping the parking rate structure up to date with current occupancy statistics. It is recommended that the City evaluate parking occupancy on a weekday and a weekend day on at least an annual basis to understand how parking rates and time limits are impacting occupancy rates.
3) Based upon parking occupancy rates, more remote parking locations may be considered in the future. These locations could be supported by a bike share program or shuttle route
4) Continue allocation of parking funds set by oversight committee goals and objectives.
5) Adjust revenue collections schedule as needed based on demand patterns.
6) Continually monitor and evaluate citation data and enforcement demand to make any necessary adjustments to enforcement staffing, hours, or beats. Staffing requirements may change due to efficiencies provided by future investments in enforcement technology.
7) Continually monitor changes in enforcement handheld technology to identify the appropriate times for upgrading of devices. Handheld devices should, at a minimum, have the following features:
    a) Real-time transmission.
    b) Ability to take, send, and view color photos.
    c) Ability to view prior citations, warnings, and valid permit information during the citation issuance process.
    d) Ability to use of a chalking feature.
    e) The use of a default citation.
    f) A simple and user-friendly user interface.
    g) A customizable public-facing web user interface to pay and appeal parking citations.
    h) A toll-free telephone number to accept citation payments over the phone.
8) Consider purchasing additional LPR devices depending on enforcement coverage.

5. TRANSPORTATION DEMAND MANAGEMENT

Transportation Demand Management (TDM) strategies are designed to encourage alternative modes of transportation to reduce the amount of vehicles driving and parking. Downtown Mountain View Mountain View is a stop on Caltrain, the regional rail network, and the Santa Clara Valley Transportation Association's (VTA) light rail network. Combined with multiple bus lines employees and residents of the City generally have the option of traveling around the metro area without the use of a vehicle, depending on accessibility and timing. However, 81 percent of employees and 70 percent of online survey responses said that they drive their vehicle to work or into the City.

TDM strategies can be effective when utilized by private employers looking to minimize the amount of parking needed to support their workforce, or as an employee benefit provided by the employer. Examples of these strategies include subsidizing transit, flexible employee schedules, telecommuting, ridesharing and incentives or rewards programs for employees that choose not to drive alone to the workplace.

Municipal TDM strategies can be varied and may include zoning limitations and reduction incentives, market based parking rates, building new biking infrastructure and working with transit authorities to name a few. Due to Mountain View's location, the City has the opportunity to implement some technologies that could improve the accessibility of downtown for both residents and employees. If paid parking is implemented in downtown, then some of the revenue from the program could be used to subsidize employers, or individual employees, to encourage more frequent use of the public transit options available in the City. Paid parking would also help encourage participation in TDM programs by raising the cost of driving in comparison to the cost of alternative modes. When priced appropriately, the City could reduce single occupancy vehicle (SOV) commutes by making driving and parking in the City less attractive than utilizing other modes of transportation.

5.1. CALTRAIN

Caltrain provides commuter rail service between San Francisco and the South Bay, as far south as Gilroy[2]. Mountain View's position as a stop on the rail line makes it possible for some employees and residents to commute to and from San Jose and San Francisco. Caltrain has north and southbound departures from Mountain View every 40 to 60 minutes, occasionally every 15 minutes, during the morning and evening rushes and every hour in the afternoon and late evening until 11:00 p.m. The schedule provides multiple opportunities and flexibility for employees that wish to take the train. However, as was mentioned by multiple stakeholders, and evident on the Caltrain website[3], riding the train can be expensive, which may limit ridership of employees.

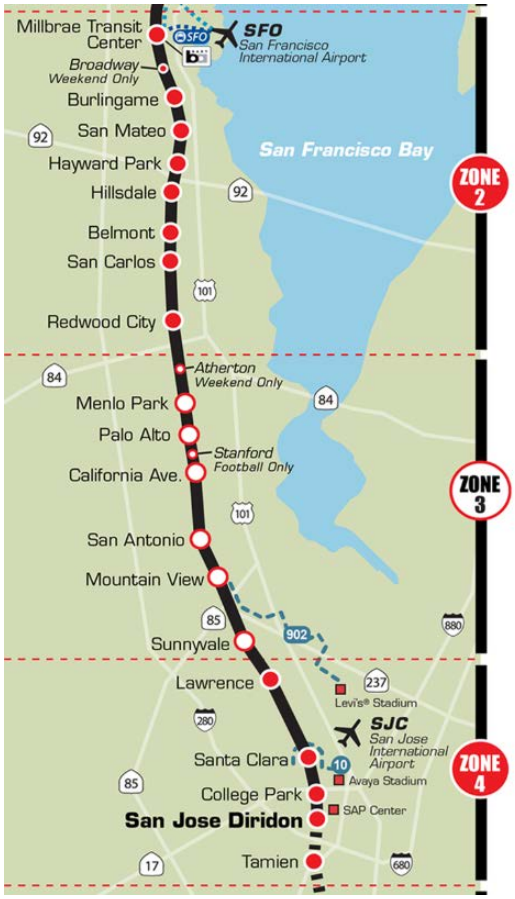


Image 13. Caltrain Route Map

Most service employees have little incentive to pay the high price for a monthly pass when commuting to Mountain View because parking is free. Additionally, while most of the City's business employees likely live within two zones (regions of the Caltrain system), there will likely be employees that live beyond that range, limiting the likelihood that they use the train. While not everyone will be able to use the train for commuting, encouraging even a small portion of daily commuters to the City to use the train would have a positive impact on parking demand. Monthly pass holders that need to travel within two or more zones have access to the VTA light rail, limited stop busses and BRT lines which significantly increases the number of ways for commuters to get to and from the City.

Caltrain also offers the GoPass[4]. A GoPass can be purchased by companies, educational institutions, and residential complexes for any number of users. The pass provides unlimited rides seven days a week to any stop on the Caltrain line. The minimum cost of the pass is $19,950 or $237.50 per rider, whichever is greater. While $237.50 annually is much more affordable than purchasing monthly passes, a 2-zone monthly pass would cost an employee $1,962 annually. Only companies with 84 or more employees would receive the full discounted price. Any company with less than 84 employees would pay incrementally more for each employee pass as the number of employees decreases. However, a company looking to provide an alternative to single occupancy vehicle trips would only need 11 or more employees before it starts paying less

[2] System Map. Caltrain (2018). Retrieved from http://www.Caltrain.com/stations/systemmap.html
[3] Fare Chart. Caltrain (2018). Retrieved from http://www.Caltrain.com/Fares/farechart.html.
[4] GoPass. Caltrain (2018). Retrieved from http://www.Caltrain.com/Fares/tickettypes/GO_Pass.html?

annually per pass than if it was to provide monthly 2-zone passes to its employees. Unfortunately, the GoPass does not allow users free access to VTA transportation.

The City should assess the feasibility of providing some level of subsidy to help service workers and employees who are not offered any incentives from their employers. With the implementation of paid parking, a portion of the revenue could be set aside to assist employees with the purchase of transit passes. The costs of both the monthly passes and the GoPass offered by Caltrain are not conducive to large utilization rates for most of the employees in Mountain View. The City could also participate in the GoPass program and, as an employer, provide the pass to City employees. This would reduce the number of vehicles in the City Hall Garage, freeing up space for visitors needing to do business at City Hall.

Adult Full Fare

Ticket Type*	How to Buy	Travel within					
		1 Zone	2 Zones	3 Zones	4 Zones	5 Zones	6 Zones
One Way	Ticket Machine	$3.75	$6.00	$8.25	$10.50	$12.75	$15.00
	Clipper Card	$3.20	$5.45	$7.70	$9.95	$12.20	$14.45
Day Pass+	Ticket Machine	$7.50	$12.00	$16.50	$21.00	$25.50	$30.00
Zone Upgrade	Ticket Machine	$2.25 per zone					
Monthly Pass++	Clipper Card	$96.00	$163.50	$231.00	$298.50	$366.00	$433.50

Image 14. Caltrain Fares Schedule

5.2. VTA

The VTA serves communities between Atherton in the North to Gilroy in the South. VTA has 11 different routes that serve Mountain View between bus and light rail service[5]. VTA's light rail alone connects the City to more than 60 other neighborhoods and municipalities. VTA's bus services make hundreds of more stops available for commuters and residents. VTA makes commuting to work via public transit more feasible for employees coming to Mountain View from the surrounding communities and greater San Jose. However, once again, pricing plays a critical role in the utilization of VTA services for service workers in the City. Image 17 presents the pricing available for commuters and while the monthly pass on the VTA network[6] is less expensive than Caltrain, the region within which VTA operates is smaller, which also limits the number of potential users in the City.

As previously mentioned, when a commuter purchases a monthly pass from Caltrain of two or more zones, they also get access to the VTA network, a $90 monthly pass, for free. The combination of the two passes makes it much more reasonable for employees to get to and from work, but realistically, only employees that live south of Mountain View are able to take full advantage of the discount. For employers however, being able to provide customers two passes for the price of one makes purchasing the Caltrain monthly pass more desirable.

Cash Fares (exact change, Clipper Cash or EZfare)			Prepaid Fares		
VTA FARES Valid fare required while onboard	Single Ride	8-Hour Light Rail Pass	Clipper /EZFare Day Pass	Clipper Monthly Pass	Annual Pass Subscription
Adult (for regular bus or light rail) click to see routes by type	$2.50	$5.00	$7.50	$90	$990
Adult Express (for express line service) click to see express routes	$5.00	N/A	$15.00	$180	$1980
Youth (5-18) ★	$1.25	$2.50	$3.75	$35	$385
Senior/Disabled/Medicare ★	$1	$2	$3	$30	$330

Image 15. VTA Fare Schedule

Similar to Caltrain, the City should assess if subsidizing a portion of the VTA pass is feasible. With the implementation of paid parking, a portion of the revenue could be set aside to assist employees with the purchase of transit passes. There are pros and cons to subsidizing the VTA pass. While the VTA pass is cheaper, and therefore more affordable for employees and the City, it does not have the regional reach that is afforded by the Caltrain monthly passes, assuming two or more zones is purchased. It should be noted that most,

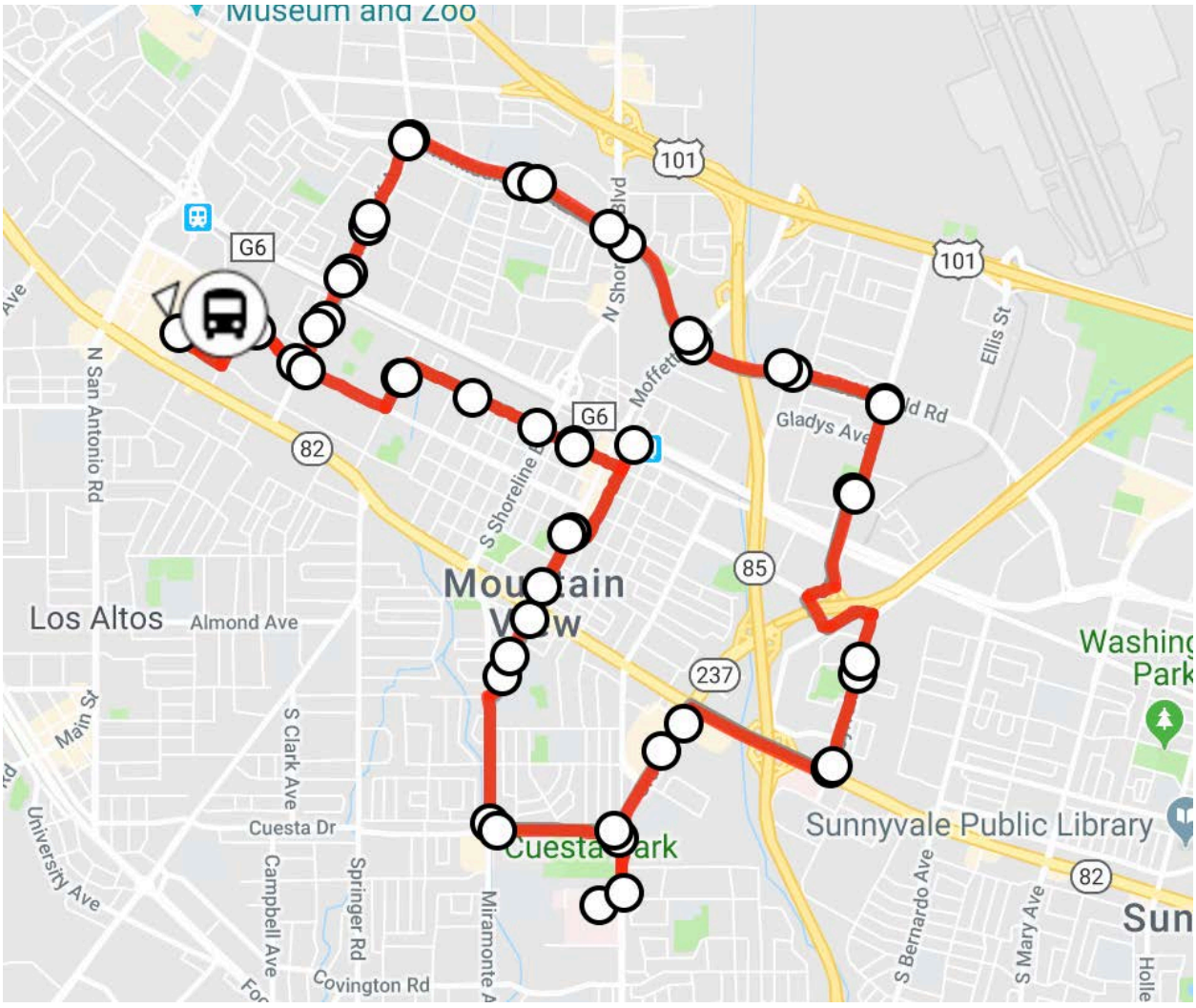
[5] Routes by City. VTA (2018). Retrieved from http://www.vta.org/getting-around/schedules/by-city.
[6] Fares. VTA (2018). Retrieved from http://www.vta.org/Getting-Around/fares

not all, of the employees that work in Mountain View, especially those in-service worker positions, probably reside within VTA's transit network.

5.3. SHUTTLES

Currently, Mountain View has two shuttle systems: MVgo supporting employees and a Mountain View Community Shuttle supporting the residents and greater community. The Mountain View Community Shuttle is supported by Google and is free for everyone. There are 50 stops throughout the community, with service between 10:00 a.m. and 6:00 p.m. daily. The shuttles are ADA accessible, 100% electric, and have free Wi-Fi on board. The shuttle program also provides real time tracking and ETAs. The route is shown below in Figure 13.

Figure 13. Mountain View Community Shuttle Route



The Mountain View Transportation Management Association (MTMA), which is a nonprofit organization run by Mountain View Businesses and landowners, also offers a shuttle program called MVgo. This program is a great example of how public and private entities can collaborate to provide a transportation resource to the community. This type of service is an additional resource that could be promoted and expanded over time. The City can allocate a portion of paid parking revenue to support the ongoing operation. Currently the service runs on weekdays, primarily during the commute periods. The system also allows for real-time tracking online as well, which is a tremendous customer convenience. The ability to promote a free transit option to employees and visitors can help reduce parking demand.

Another similar service to consider is The Free Ride. The Free Ride is a free shuttle program that has been successfully implemented in several cities throughout the country. The shuttle program is free to the users because the staffing and operating costs are completely funded by advertisements. There are moving billboards, videos for passengers and even sample products that are given out during the rides. The vehicles are all electric and each fit up to five passengers. Additionally, a mobile application will allow users to request a ride within certain boundaries; users are prompted to select their pick up and drop of locations, and the application provides real time driver ETAs and notifications.

Image 16. The Free Ride Shuttles

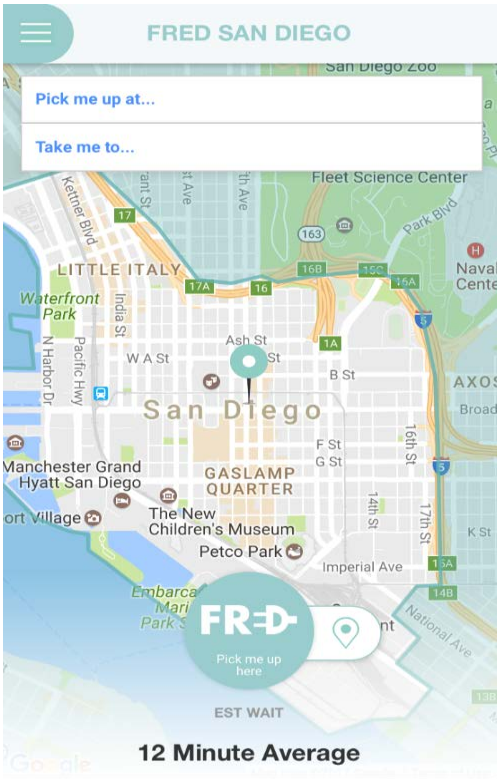


Image 17. San Diego FRED App

The Free Ride has been implemented in South Florida, California, the Hamptons, and the Jersey Shore. In the City of San Diego, The Free Ride operates under a partnership between the City, Civic San Diego and the Downtown San Diego Partnership. In San Diego, the program is called "FRED," which stands for "Free Ride Everywhere Downtown." The initial funding of $500,000 for the program came from downtown parking meter revenue. The City purchased a fleet of 15 vehicles for $200,000, and the additional $300,000 of funding went towards storage, charging stations and start-up personnel costs. Up to $2 million over 5 years was earmarked for the program. The shuttles operate between 7:00 a.m. and 9:00 p.m., Monday through Thursday, until Midnight on Friday and Saturday, and from 9:00 a.m. to 9:00 p.m. on Sunday. Drivers earn $14.66 per hour. Staffing and operating costs are funded by advertisement revenue.

The City is currently initiating a shuttle study to determine future shuttle needs for the City including possible expansion of the community shuttle, and possible integration with MVgo. A free shuttle option can be explored in the shuttle study

5.4. BIKE AND SCOOTER SHARING

Bike and scooter sharing provide the City with additional resources to mitigate the first mile/last mile problems for commuters coming to the City. Lime bike is already operating within the City and has an active user base. The City launched a bike share pilot program[7] to encourage people to use bicycles and to support the goals of embracing sustainable living. The pilot period is from May 2018 to April 2019. While Lime and other dockless bike share companies offer improved convenience and flexibility for users because they are not required to leave the bike at a designated location, dockless programs can also be hard to manage and regulate. This is why the City established specific requirements for the bike share pilot program, including the following:

Image 18. Lime Bike

- a maximum citywide fleet of 800 bicycles (400 per provider);
- parking only in the furniture zone (see diagram below) of the public right-of-way so as not to interfere with pedestrian travel and universal access;
- restricted and geofenced parking areas along Castro Street, San Antonio Road and the Transit Center (such as near the flag pole at Centennial Plaza);
- 24-hour customer service lines for anyone to report issues or concerns;
- response times of 2 hours (6 till 6 Mon–Fri), or 10 hours after hours; and
- data sharing requirements to help City staff evaluate the program.

[7] https://www.mountainview.gov/depts/pw/transport/pilot_bike_share_program.asp

By promoting the services to commuters and residents, the City may increase bike ridership in general. The City could also increase bike ridership by supplying bike lockers for public use. People may be more willing to ride their bike into downtown if they know that there is a safe, secure place for them to store their bicycle. The City currently provides bike lockers stationed throughout the downtown area. The City bike lockers are rented with a one-time refundable deposit of $25. The City could explore lockers that can be rented on demand for the occasional bicyclist to downtown who prefers a more secure bike parking option. .

Image 19. Bird Scooter

The City should consider providing credits for residents to use shared mobility devices through the use of paid parking revenue. Based upon the revenue allocation schedule, the City can define a certain set-aside to fund transit alternative programs like this. For example, Mountain View residents could be provided with a code to receive $5 of free credit for Lime Bikes. The City should work with the shared mobility companies to identify program requirements.

5.5. CARPOOLING

Carpooling is another TDM strategy to encourage commuters that have similar work schedules and routes to ride together. There are already several vendors and applications that provide carpooling services to commuters. Scoop and Waze are two of the more recognizable carpooling apps, but there are many more than that available to commuters in the Bay Area. The 511 Regional Rideshare Program is a free service that introduces commuters to people that live nearby for carpooling and vanpooling. There are available technologies that would provide the City with the opportunity to support carpooling services. Commuters that carpool could be offered discounted parking permits, reduced hourly rate coupons for parking meters and dedicated carpool only parking spaces in employee parking areas. For example, Inugo[8], a Bluetooth parking technology provider, has parking beacons that can verify whether drivers are actually carpooling or not. These Bluetooth beacons could be installed in conjunction with a carpool permit program.

[8] https://inugo.com/

5.6. AUTONOMOUS VEHICLES

Connected cars and autonomous vehicles will eventually change parking demand and transportation trends for cities in the future. While this is not an immediate concern for most cities, it is likely that Silicon Valley will be on the cutting edge. Google's Waymo is already a daily user of Mountain View's streets, escalating the need for autonomous vehicle solutions in the City sooner than other municipalities. Perhaps the most impactful aspect of autonomous vehicles in downtown Mountain View will be the increase in demand for passenger drop off and pick up areas. The City should continue to monitor autonomous vehicle developments and trends. The City could start preparing for autonomous vehicles by ensuring that the municipal codes are adaptable to new technologies. The City should continue to work with autonomous vehicle companies to understand what infrastructure improvements may be required in the City.

5.7. SURVEY AND INCENTIVE PROGRAM

The City should consider implementing a transit incentive program similar to the "Just One Trip" program offered by King County Metro in Washington State[9]. King County Metro provides commuters with the opportunity to participate in a survey about what mode of transportation commuters typically use, commute times, and public transit ridership. Additionally, the program suggests that participants take a pledge to reduce their drive-alone trips by either:

- Sharing the ride in a carpool or vanpool
- Riding the bus, ferry or train
- Bicycling or walking
- Working from home

Figure 14. Just One Trip Logo

The program encourages the use of alternative modes of transportation for commuting to work by converting "Just One Trip" per week from driving alone to any of the above listed options. By taking the pledge, participants are awarded with a $25 Orca card, which provides transit fare to the region's public transit options. Additionally, a $100 Guaranteed Ride Home credit is provided towards one taxi ride for qualifying emergency rides home from work. Some commuters can be reluctant to take alternative modes of transportation out of fear that they will need to leave work in a hurry for an emergency situation. A Guaranteed Ride Home can help reduce anxiety for commuters that take a trip without their personal vehicle by providing an alternative.

This program not only promotes the benefits alternative modes of transportation, it also gives King County Metro data about commute trends. Each Orca card has a unique serial number which could allow King County Metro to track utilization and program success rates, reductions in single-occupancy vehicle (SOV) trips, and estimated Greenhouse Gas (GHG) emission reductions. Additionally, offering free transit passes to commuters who don't typically take public transit could be an effective way to introduce new riders to the public transit options in the region.

The City of Mountain View could consider implementing a similar incentive program to promote alternatives, whether its Caltrain, ridesharing, dockless bikes, or other regional options. This program could be funded directly or in part through paid parking revenue.

[9]https://www.kingcounty.gov/depts/transportation/metro/programs-projects/transit-education-outreach/just-one-trip.aspx

Transportation Demand Management Implementation

Near-Term Steps

1) Consider TMA membership and downtown TDM programs.
2) Assess the feasibility of a TDM or transit pass program for City staff.
3) Consider implementing a survey and incentive program similar to King County Metro's "Just One Trip" program.
4) Consider allocating a portion of paid parking revenue to the above transit alternative programs.

Mid-Term Steps

1) Determine the feasibility of subsidizing transit passes on Caltrain or VTA for employees working for Mountain View businesses based upon paid parking revenue.
2) Install on demand public bike lockers in downtown.
3) Implement a carpooling permit program.
   a) Consider procuring technology to support the program, such as the Inugo Bluetooth beacons.

Long-Term Steps

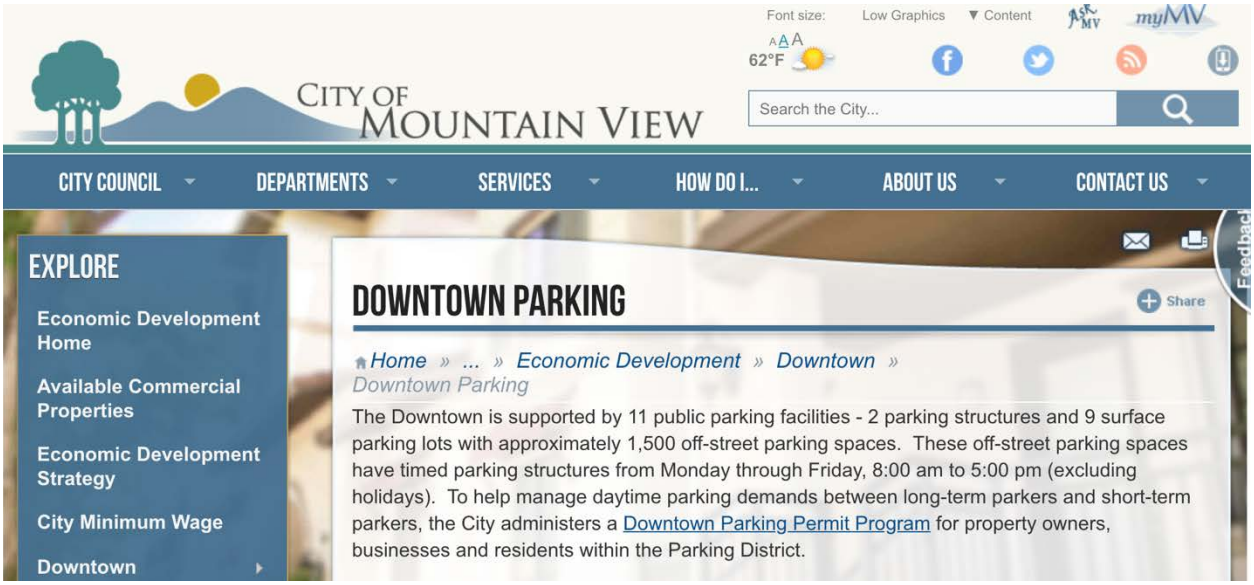
1) Continually assess and update subsidy program for transit passes.
2) Continue to monitor autonomous vehicle trends and work with autonomous vehicle manufacturing companies to determine any future infrastructure needs.

6. ADDITIONAL PARKING SOLUTIONS

6.1. EDUCATION AND OUTREACH

To successfully implement the recommendations throughout this report, such as parking zones, parking permits and paid parking, the City should begin by launching an education and outreach program to inform the public about upcoming program changes. The City should also utilize available community resources to help push information into the community. The Mountain View Central Business Association (CBA) and surrounding Neighborhood Associations can assist by coordinating stakeholder outreach and distributing parking information to business owners, employees and residents. The City currently has a webpage on the City's website with information about downtown parking. This is a great location to include educational information about the program as it changes. For example, the valet pilot program information is included on this site. The City should continue to proactively promote information through this page.

Figure 15. Current City Downtown Parking Webpage

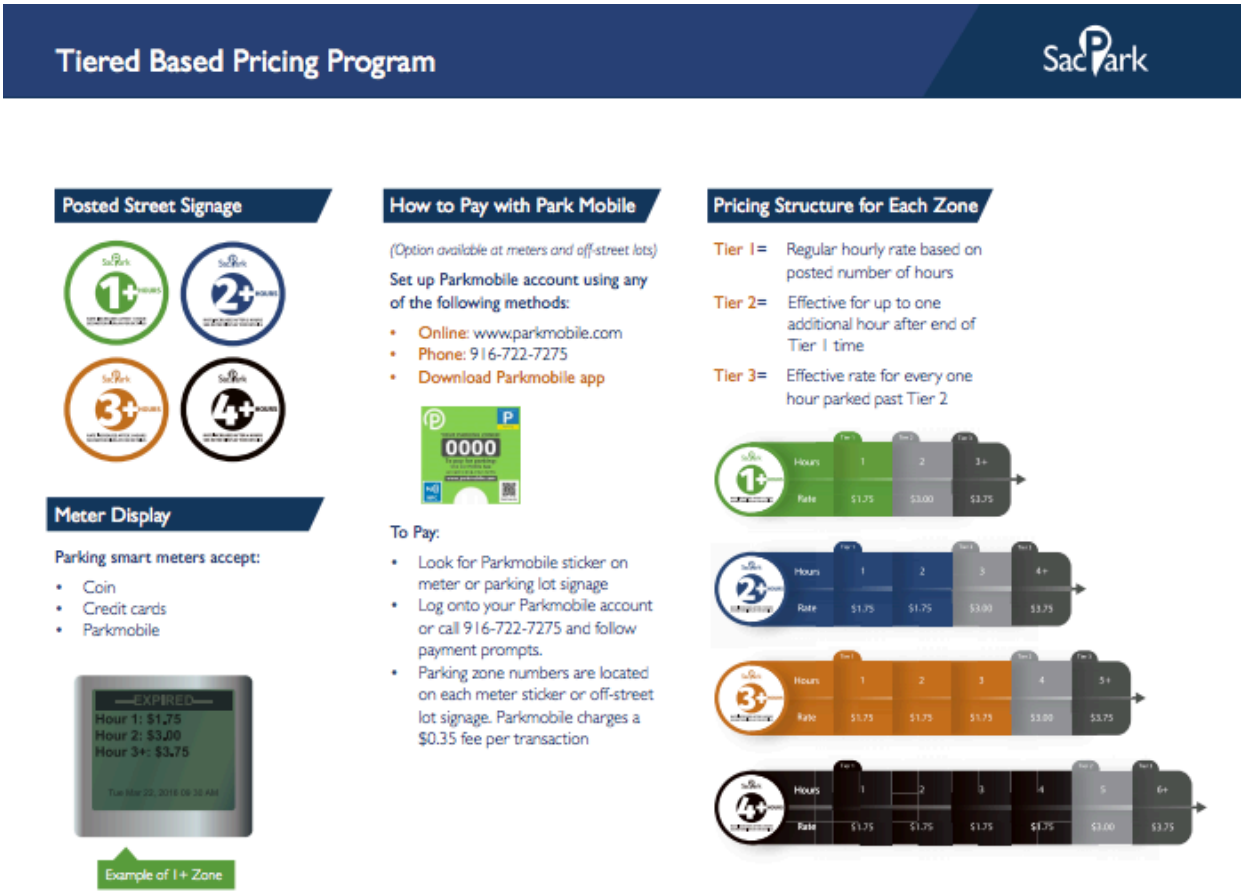


Additionally, given the number of surrounding large companies in the area, the City should also make a deliberate effort to collaborate with them in discussions where potential solutions are mutually beneficial. Issues around Transportation Demand Management (TDM), lunch hour access into downtown, and employee permits are examples of potential areas where solutions would be beneficial for both parties.

Successful campaigns in other municipalities have included social media pages, online video instructions, flyers, press releases, and field parking ambassadors to assist with education and demonstrations. A useful example is the City of Sacramento's online pricing

sheet that explains its tiered pricing program using easy to understand graphics (Figure 16). This sheet includes instructions on how to understand signage, how to pay for parking, including mobile payment information, and how the pricing structure works for different tiered zones. The sheet is also branded with the "SacPark" brand that is included on all parking outreach materials and signage. The City of Sacramento has an instructional video posted on its website to demonstrate how to use its smart meters.

Figure 16. City of Sacramento On-Street Paid Parking Guide



When communicating to the residents and the public about the parking program, it will be important for the City to explain the program purpose, goals, and benefits of any changes. The City should define and communicate its overall parking ethos.

The Seattle Department of Transportation (SDOT) has an effective example[10] on their website about the importance of managing on-street parking:

[10] https://www.seattle.gov/transportation/permits-and-services/permits/parking-permits

"Parking is a key piece of the transportation puzzle. As a limited resource that's often in high demand, SDOT manages on-street parking to: balance competing needs (transit, customers, residents, shared vehicles), move people and goods efficiently, support business district vitality, and create livable neighborhoods"

"The Seattle Department of Transportation (SDOT) manages street parking to support a vibrant city with connected people, places, and products. Curbspace used for on-street parking (as well as transit, deliveries, and many other things) is a limited resource in high demand. So, we carefully balance competing needs in order to move people and goods efficiently, support business district vitality, and create livable neighborhoods. That's why we regulate curbspace, install and maintain paid parking, loading, and short-term access in business districts as well as restricted parking zones in residential areas."

SDOT is also effective in using positive wording to communicate parking regulations. Seattle's "Can I Park Here?" brochure shifts the focus to what is allowed instead of what is prohibited (Figure 17). It concisely identifies signage information, how to avoid parking tickets, and how to "Park Like a Pro." Additionally, it is a one-stop shop for parking information and resources with regard to paying parking tickets, digital tools, and contacts.

Figure 17. Seattle DOT: Can I Park Here?" Brochure Excerpt

Seattle has also implemented the “Play Like a Parking Pro” program. Using Monopoly-style card signage, along with a series of funny informational videos, the City communicates new parking program changes and regulations. This campaign is meant to educate drivers about the parking system, so they can park smart, understand the rules, and use tools like mobile payment and online maps to improve their experience. By taking a fun approach to an educational campaign, the City improves the overall perception of parking while providing useful information. The City uses playful flags along with Monopoly signage at its meters (Images 20 and 21).

Image 20. Seattle Parking Flag

Image 21. Seattle Play like a Parking Pro Sign

When the Portland Bureau of Transportation implemented their mobile payment application, called “Parking Kitty”, a successful education and outreach campaign included the collaboration with iAmMoshow, the “Cat Rapper”. The City released a humorous music video with the Cat Rapper promoting the mobile payment application. The YouTube video has over 20,000 views and it was broadcast in the news as well. The parking zone map uses Parking Kitty logos, and the City even sells Parking Kitty branded T-shirts. The City of Mountain View could consider taking a creative approach to promoting parking information to make the parking experience fun and positive.

iAmMoshow - Parking Kitty (Official Video)

Image 22. Parking Kitty Music Video

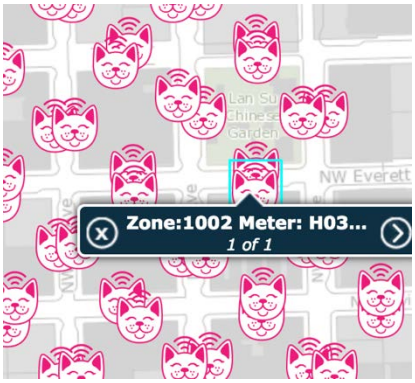


Image 23. Parking Kitty Zone Map

6.2. VALET PARKING

The City is currently offering a free downtown valet pilot program from Thursday through Saturday from 11:00 a.m. to 2:00 p.m. and 5:00 p.m. until midnight. The program is operated through Parking Company of America for $75,000, and its located in Lot 11 on the corners of Franklin Street and Villa Street. There are currently about 15 cars that use the service per session. While a valet operation can be expensive, it is an effective alternative to building more parking supply.

Image 24. Valet Parking Poster

While this pilot program is a good starting point, the City should consider expanding the program. Valet parking is a tremendous opportunity to maximize existing parking resources. By stacking vehicles, the City will be able to store more vehicles off-street. Additionally, valet parking can reduce congestion by encouraging drivers to drop off their vehicles at a convenient location, rather than searching for parking throughout downtown. There are a number of recommended program enhancements that the City could consider to increase participation.

There is currently limited signage that informs and guides potential service users to the lot. The City should place temporary signs along Castro Street and a few of the busier intersections to guide parkers to the service. The City should also consider moving the valet drop-off and pick-up location closer to Castro Street in between Bryant and Castro Streets. The current drop-off and pick-up location is at the entrance to Lot 11. This location does not maximize the convenience of the valet service. Currently, it is just as easy for someone to drive to Lot 11 and park themselves. Instead, the valet program should offer customers the ability to drop off their vehicle in a more central location. The valet operator could then drive the vehicles to and from the drop off and pick up points. The current configuration forces users to drive to the locations where their cars are parked, providing little incentive to utilize the service. Moving the location to where customers exchange their vehicles closer to the busier part of downtown may encourage more utilization.

The City may also want to consider dedicated parking facilities for the pilot. Valet can be used to achieve greater capacity out of existing parking facilities, as valet-parked vehicles can be organized into tandem arrangements (bumper to bumper) that can increase capacity by as much as 40 percent. Currently the pilot program uses a lot that can also still be parked in by visitors that aren't using the service. This limits the ability of valet to maximize space because operators are not able to park vehicles in such a way that may block vehicles from exiting the parking space. By dedicating a location specifically for valet use during the times of operation, operators would be able to efficiently park vehicles in tandem arrangements that would maximize the space, thereby allowing more parkers to utilize the service.

The City should also consider extending the hours of operation to avoid gaps in service. This can help make the program more attractive and usable for drivers. Currently, because the service has a gap between the lunch and dinner hours, drivers are unable to retrieve their vehicle without going through the Police Department. This is inefficient to the driver, and makes participating in the program risky if their plans were to change. Additionally, if a vehicle is not retrieved before the end of the day, the driver would also have to visit the Police Station to retrieve their keys. By expanding the hours to include the gap in between lunch and dinner, utilization of the service may go up because potential customers won't have to consider returning to their vehicles before the end of the valet shift to collect their keys.

6.3. SHARED PARKING

The City could pursue shared parking agreements with businesses and land owners that may have parking availability. It is important to maximize existing parking resources in the area around downtown and consider all potential solutions. The City should consider offering a monetized shared parking option that would be mutually beneficial to the private lot owners and the City, to allow for a more comprehensive approach to parking management in Mountain View. Shared parking agreements could be established for public or permit parking. Shared parking agreements work best with companies that have regular operating hours such as banks and office buildings that support medical and commercial tenants. Typically, these types of locations are underutilized in the evenings and would be able to provide added capacity during weekday evening hours and on weekends. There are several locations around downtown that would be ideal for a shared parking agreement including, the Kaiser Permanente Medical Center parking garage (Image 26) and the Bank of the West parking lot. Both lots are located near City Hall and provide users with convenient, well-lit access to downtown retail and restaurants.

A portion of the revenue from shared parking should be set aside to support the enforcement, maintenance and upkeep of shared parking locations. Additionally, funds could be used to guarantee certain parking lot enhancements as an additional value add from the shared parking program. The City would install the necessary meters or pay stations, help establish the appropriate parking rates, designate any necessary time limits, and provide enforcement and basic maintenance. The shared parking agreement would establish any potential revenue splits.

Image 225. Kaiser Garage Entrance

6.4. WAYFINDING AND PARKING GUIDANCE

The signage and parking brand should be consistent throughout Mountain View, including sign format, symbols and colors. The City currently has some parking wayfinding signs mounted throughout downtown, as seen below. A unified parking brand provides an improvement to the overall customer experience. The direction of the signage needs to be clear and easy to understand. While the signage identifies the public parking locations, sometimes the positioning of the signage makes it difficult for drivers to see from down the street. The City should consider rotating the signage so it visible from down the street.

Image 236. Mountain View Wayfinding Sign

The City's parking brand should be incorporated into all outreach materials. Other nearby municipalities including San Mateo and San Jose have done an effective job at utilizing a parking brand on their city websites.

Image 247. San Mateo and San Jose Parking Brands/Logos

The City should also be sure to expand the public parking branding to future shared parking agreement locations. For shared parking agreements, the parking brand/signage should be required in conjunction with the terms and conditions of the agreement. In addition to static wayfinding signage, the City can deliver parking information through multiple outlets including vehicle messaging systems, digital signage, and the internet.

Image 258. Parking Sense Overhead Sensors

Image 269. Parking Sense LED sign

The City recently installed Parking Sense occupancy counting technology in both of the garages downtown. Each space in the garage has a sensor that is able to determine if a vehicle is parked in the space or not. Along with the sensor is an LED light that changes color depending on the availability of the parking space, green when open, red when occupied, and blue for ADA accessible spaces. Additionally, total space counts for the garages are pushed to digital signs attached to the exterior of the garage, providing potential parkers with space count information. There have been some concerns about the accuracy of the system, however. Recently, when a number of spaces were blocked off, the LED signage indicated that 45 spaces were available for parking when in reality all of the spaces were unavailable. In instances like this, the City should proactively update the inventory number to avoid congestion in the garage from drivers searching for available parking. The City should continue to work closely with the vendor to increase the reliability of the system and utilize functions in the back-end software, such as inventory totals, that allow the system to maintain accuracy.

The City should consider installing occupancy count technology in the surface lots located throughout downtown. Instead of installing a sensor per space, a more cost effective approach would be to include a sensor at the entrances/exits of each location.

Both the existing parking garage sensors and the potential lot sensors would allow the City to push parking availability information to the City website, providing visitors real-time information, which would allow visitors to know exactly which lots they can park in before they even visit the City.

The City of San Jose has an interactive parking map on their website along with real-time parking availability data (Image 31). Mountain View can consider broadcasting occupancy data as well. This information can be helpful for trip planning and provides a resource for visitors to downtown.

Parking Garage Data
Open spaces in the city owned parking garages in downtown San ...

Garage_Name	Garage_Status	Available_Visitor_Spaces	Total_Visitor_Spaces
Fourth Street Garage	Open	84	150
City Hall Garage	Open	103	302
Third Street Garage	Open	107	134
Market San Pedro Square Garage	Open	305	445
Convention Center Garage	Open	443	510
Second San Carlos Garage	Open	120	220

Image 30. San Jose Parking Data

Ideally, the City should rename the parking facilities for ease of messaging. Currently, an inconsistent naming system is utilized even amongst City staff. To avoid confusion and simplify the message, parking facilities should be named using an intuitive system. This can be done through a numbering or lettering system where the lots are numbered or lettered in order from the northwest side of downtown to the southeast side of downtown. Or, the City could choose to name the facilities based upon the street names that they are located along. Using street names can provide more context to someone who is navigating their way to a parking location. Regardless of the naming system chosen, the City should be sure that all outreach materials are updated to be consistent.

6.5. ADDITIONAL PARKING GARAGE

Many stakeholders are in favor of constructing an additional parking garage to address the parking availability issue in Mountain View. 36 percent of employees surveyed stated that they would add more parking supply in the City if they could. The construction of a parking garage would be a significant investment for the City. Instead, the City should first implement parking management strategies such as time paid parking, and demand management strategies that promote alternative modes of transportation. Shared parking has the potential to significantly increase available parking supply without needing to build any in the City. It is anticipated that if the City strategically manages its existing supply it can avoid constructing a parking garage in the near and mid-term. Space in the downtown core is limited, so the City should invest in land uses that improve the overall vibrancy of the downtown.

Following the implementation of the strategies in this PAP, if the City continues to experience high occupancy rates, the City should at that point consider constructing a parking garage. The City should identify and protect from development one or two of its lots to ensure it has the ability to build a garage if needed.

Additional Parking Solutions Implementation

Near-Term Steps

1) The City should establish an easily recognizable unified parking brand with a graphic or symbol to represent the Mountain View Parking Program. This brand should be included on all outreach materials as well as any signage, parking meters, and equipment to maintain program cohesiveness.
2) Flyers should be mailed out to residents, business owners, and employees with information about any upcoming parking program changes. Additionally, all information should be available on the City website and any business community webpages, including CBA. For example, if the City implements paid parking, information should include the type of meters, meter locations, how to use the meters, the program purpose, and the program start date. Any information about residential or employee permits should also be incorporated into the City's education and outreach campaign. Flyers should incorporate the City's parking brand, which will help to provide residents and employees with a familiar marker when visiting downtown.
    a) The program purpose should focus on program benefits and improving the visitor experience in Mountain View through effective parking management. Parking should be simple, easy to find, and easy to purchase.
    b) The City should consider using positive language to communicate parking regulations.
3) The City should host forums for public feedback and comments in preparation for the implementation of paid parking. This will allow the City to incorporate public feedback into any implementation actions.
4) Reach out to large companies nearby Mountain View to collaborate on potential TDM strategies and parking programs that can improve access to downtown Mountain View.
5) Ongoing monitoring of program. Add additional temporary signage along Castro Street and at busier intersections to guide visitors to the drop-off location.
6) Move the drop-off and pick-up location for the service closer to Castro Street along Villa Street.
7) Restrict parking access of Lot 11 during Valet operating hours.
8) Expand Valet operating hours to include portion of the day between lunch and dinner rushes.
9) Amend the ordinances to allow for shared parking.
10) Establish a framework for a negotiation process for off-street shared/public parking agreements in areas with high parking demand. This process would occur between owners of privately-operated off-street parking facilities, property owners and applicants for new developments. Some considerations to have when pursuing shared parking agreements with business owners are:
    a) Term and extension: evaluate return on investment and ensure terms that allow for potential redevelopment.
    b) Use of Facilities: establish available hours, number of spaces, time limitations and ensure base user will retain use at the end of the sharing period.
    c) Maintenance: evaluate the added cost of maintenance and operation.

d) Operations: consider revenue collection operations (when applicable) and needed signage.
e) Utilities and Taxes: determine the responsible parties and any cost sharing agreements.
f) Signage: consistency with City signage can improve the public experience.
g) Enforcement/Security: determine who handles enforcement and towing.
h) Insurance and Indemnification: consider litigation with any cost sharing.
i) Termination

11) Explore the possibility of any shared parking agreements with any potential locations, including:
a) Kaiser Permanente.
b) The Bank of the West.
c) Wells Fargo Bank

12) Incorporate the City's parking brand and wayfinding program into the shared parking agreement contract. Each location should also be required to participate in the wayfinding program.

13) Work with Parking Sense to improve accuracy of occupancy data.
a) If customers are unable to trust the occupancy displayed on the digital signage they will most likely revert back to the habit of cruising the garage looking for available parking. This will result in increased congestion and financial waste.

14) Proactively update the inventory for garages if spaces are blocked off for construction or other purposes.

15) Consider piloting other occupancy counting technology in a parking lot.

16) The City should implement the aforementioned parking management and demand management strategies prior to considering the development of parking garage.

Long-Term Steps

1) Continue to use CBA and Neighborhood Associations to provide information to stakeholders.
2) Continue to collaborate with nearby large companies on parking and transportation solutions for accessing Downtown Mountain View.
3) Re-evaluate program and vendor to determine need for expansion or adjustments.
4) Work with property owners to determine the appropriate hourly rates and time limits for each location. Ideally, the convenient parking outside of businesses should be time limited to ensure turnover and accessibility to the businesses.
5) Determine the appropriate revenue split rates to sustain the program.
6) Ensure that existing paid parking vendor contract allows for the ordering of additional infrastructure and order the additional paid parking technology needed.
7) Allocate the necessary parking enforcement resources to manage the participating locations. This may require additional staff.
8) Install paid parking technology at participating shared parking locations. The actual amount of equipment depends on the unique geography and configuration of each location, and it is typically 1 pay station for every 30 parking spaces. Pay Stations should be configured the same as on-street which provides continuity for parkers and ease of enforcement.

9) Install the appropriate signage to indicate paid parking and time limits.
10) Continue to evaluate for new opportunities between the City and private business/land owners.
11) In the future, any City-owned lot could be equipped with a vehicle counting system so that available parking information may be displayed and promoted in real-time.
    a) Loop systems and optical sensors can provide real-time occupancy counts. This is the simplest and most cost-effective method of aggregating the number of available spaces throughout a lot. The loop system would be installed at the ingress and egress points of the lots, and software algorithm uses a simple formula based on the total inventory of the lot to determine how many spaces are available at any time.
    b) Occupancy data can be displayed via the internet for real time parking availability information.
    c) The number of available spaces should be displayed on digital messaging monument signage.
12) Continue to monitor occupancy rates to assess the need for a parking garage. If downtown occupancy rates consistently reach above 85%, the City could consider constructing a parking garage.

7. CONCLUSION

Using the strategies and recommendations included throughout this PAP, the City of Mountain View can introduce parking program efficiencies that will improve the operation and overall downtown parking experience. The recommendations were developed based upon a series of site visits, extensive stakeholder feedback, past data analysis, and industry best practices.

Stakeholder engagement was a critical component of this study. The City and DIXON incorporated feedback from a variety of stakeholder groups including internal city staff, residents, employees, and business owners. The results from the online survey and "knock and talk" employee intercept survey were carefully weighed and considered during the formation of the PAP recommendations. The City should continue to engage community stakeholders as the recommendations in this report are reviewed and implemented.

The feasibility and prioritization of the strategies will ultimately be dependent on the City's ongoing review, public feedback, and estimated costs. While a paid parking operation is recommended, there are also a number of recommendations that should be addressed prior to or in conjunction with the implementation of paid parking. This includes recommendations for improving enforcement, permit management, and encouraging alternative modes of transportation.

Appendix A. Focus Group Meetings

On August 28, 2018 DIXON met with a series of focus groups to discuss downtown parking priories and objectives.

Downtown Property Owners

DIXON and the City lead a focus group discussion with commercial property owners in Downtown Mountain View. The discussion provided an opportunity to understand how parking issues affect the commercial tenants in downtown. The property owners offered valuable insights on the areas of TDM, parking requirements in dense urban areas and, the potential pros and cons of paid parking in the City.

Several main themes emerged from the discussion that informed DIXON's recommendations in the TDM, Parking Demand Management, Shared Parking, Employee Permit and Wayfinding sections of this report. Some of these recommendations included using single-space meters, problems with equity in the City, solutions involving CalTrain, shared parking with Kaiser Permanente and tiered pricing structures should the City implement paid parking in downtown.

Attendees of this focus group all believed that paid parking would not negatively impact commercial office tenants of downtown Mountain View. However they also highlighted the issue of equity and affordability. The focus group identified the many issues surrounding affordability for service workers including permit parking, the affordability of transit passes and long-term parking in the City.

A summary of major topics discussed during the Downtown Property Owners Focus Group is included below:

- Transportation Demand Management (TDM)
  - Providing incentives to use alternative modes of transportation, especially for employees.
  - Encouraging the private sector to promote TDM incentives
- Equity and Affordability
  - Ensuring that downtown employees can afford to park.
  - Many employees currently shuffle their cars between on-street spaces because the permit program is unaffordable.
- Car Ownership
  - The City may see a decline in car ownership over time.
- Paid Parking
  - The City should charge the market rate for parking.
  - Participates indicated a preference for single-space meters.
  - A tiered parking rate structure could be the most effective.
- Shared Parking
  - The City should consider shared parking opportunities to maximize existing resources.

Downtown Business Owners

DIXON and the City met with a Downtown Business Owner Focus Group to further expand on the parking challenges that downtown has experienced in recent years. The focus group identified several issues that they believe could have negative impacts on the vitality of downtown Mountain View. Four areas that particularly stood out amongst attendees were employee parking, time limit lengths, enforcement and wayfinding.

The business owners wanted to see a change in employee parking practices including, having a program that provides affordable transit passes (i.e., CalTrain) to employees, remote parking with regular shuttle service, and having locations that were employee parking only. The focus group also believed that longer time periods would better suit the City's business environment, identifying 3-hour parking as the ideal time period for visitors to fully enjoy downtown. Inconsistent enforcement was also a common topic brought up during the meeting. Attendees desired more enforcement of parking in downtown to regulate employee parking more efficiently. The focus group also discussed the possibility of improving the City's wayfinding. Some of the ideas expressed included having an app that could identify open spaces in the City and providing more parking information online so that visitors can plan their trips better.

Recommendations from this focus group influenced the Employee Permit, Wayfinding, Enforcement and Parking Demand Management and TDM sections. A summary of major topics discussed during the Downtown Business Owners Focus Group is included below:

- Enforcement
  - The City has inconsistent enforcement, and many of the on-street spaces are being utilized by employees instead of customers.
- Time Limits
  - Suggestion of a 3-hour time limit for on-street parking to give customers enough time to shop and eat.
- Employee Parking
  - Many employees are parking on-street and shuffling their vehicles.
  - The City should consider utilizing a remote parking facility, supported by a shuttle, for employee parking.
  - The City could subsidize employee passes for Caltrain.
- In Lieu of Fee
  - The City's existing in lieu of parking fee may be too high; it may disincentivize business.

Mountain View Residents

DIXON and the City held a focus group with several residents that represented neighborhood associations within close proximity to downtown. The goal of this meeting was to better understand how downtown parking may impact residents currently and in the future.

The primary concern for this focus group was residential permit parking. A main issue for residential permits was the petitioning process. Many members of the focus group believed that the process of establishing residential permit zones is too complicated, and that the

petitioning process was burdensome for residents. Equity was an area that the focus group wanted included in the final report, citing problems for immigrants and low-income residents' ability to participate in any permit programs established by the City. Attendees of the focus group also believed that more outreach could be done by the City in their neighborhoods when the City is considering changes that would impact the livability of residents in the downtown neighborhoods. This focus group also discussed the problems with game days at Levi's Stadium. They expressed a desire for increased enforcement on gamedays to mitigate the impacts of people parking in residential neighborhoods for free all day and taking the train to the games.

This focus group provided DIXON and the City valuable input on the areas of residential permits, TDM, enforcement, wayfinding and special event parking. The focus group was also concerned with issues surrounding equity and ensuring that the parking program was accessible for all income levels.

A summary of major topics discussed during the Residents Focus Group is included below:

- Vehicle Dwelling and Oversized Vehicles
    - There is concern with the amount of vehicle dwellers and oversized vehicles being stored in the residential areas.
- First mile/last mile
    - The City should work to bridge the gap for residents through shuttle programs, ridesharing incentives, and other alternative mode programs.
- Enforcement
    - Downtown enforcement hours could be extended further into the evening to address the peak parking impacts during the dinner hours.
    - Enforcement during the Levi Stadium program may not have been not effective enough.
- Residential Permit Parking
    - The current process for establishing a residential permit zone is too challenging to complete.
    - The City should consider low-income residents and the affordability of any permit parking program.
    - Spillover parking impacts are particularly prominent during events downtown.
    - If Castro Street is closed, other neighborhoods around major arterials will be more heavily impacted by parking impacts.

Appendix B. Online Survey Results

The City of Mountain View posted an online survey regarding parking in downtown Mountain View. The survey was posted on the City's website on August 17 through October 20, 2018. The survey was intended to collect information about how people currently access and park in the downtown area and feedback about potential downtown parking policies. The City received a total of 280 responses. Overall, a majority of the respondents live in Mountain View and visit downtown Mountain View more than once per week. Most respondents visit downtown to eat and stay for one to two hours. The results of the survey are presented and discussed below.

1. Where do you live? (choose the most precise)

	Response Percent	Response Count
Mountain View	86.1%	241
Santa Clara County	8.9%	25
Bay Area	3.2%	9
California	0.4%	1
Other	2.5%	7

86.1% of respondents live in Mountain View. A combined 97.5% of respondents indicated that they live somewhere in the state of California.

2. How often do you visit downtown Mountain View?

	Response Percent	Response Count
Every day	16.1%	45
Multiple times a week	35.0%	98
Multiple times a month	41.8%	117
Less than once a month	7.1%	20

51.1% of respondents visit downtown Mountain View more than once per week and 41.8% visit multiple times per month. Only 7.1% of respondents visit downtown Mountain View less than once per month.

3. What was the primary purpose of your most recent visit to downtown?

	Response Percent	Response Count
Working	9.3%	26
Shopping	12.5%	35
Eating	58.9%	165
Other	19.3%	54

The majority (58.9%) of respondents indicated that eating was the primary purpose of their most recent visit to downtown Mountain View. 12.5% said their visit was primarily for shopping, and 9.3% said it was for working.

4. How long was your visit?

	Response Percent	Response Count
30 min or less	9.3%	26
30 min to 1 hour	15.8%	44
1 - 2 hours	48.0%	134
2 - 4 hours	17.2%	48
4 - 8 hours	3.2%	9
Longer than 8 hours	6.5%	18

48% of respondents indicated that their last trip to downtown Mountain View was between 1 and 2 hours. A combined 25.1% of respondents' last trip was 1 hour or less and a combined 20.4% of respondents' last trip was between 2 and 8 hours. 6.5% of respondents indicated that their last trip to downtown Mountain View was longer than 8 hours.

5. What mode of transportation did you use to get to downtown?

	Response Percent	Response Count
Walking	17.6%	49
Biking	7.9%	22
Rideshare	1.1%	3
Public Transit	1.4%	4
Personal Vehicle	70.3%	196
Other	1.8%	5

Respondents were most likely to travel using their personal vehicle with 70.3% indicating as such. The other 29.8% of respondents used modes of transportation such as walking (17.6%), biking (7.9%), other (1.8%), public transit (1.4%), and rideshare (1.1%).

6. How long did it take you to find parking?

	Response Percent	Response Count
Immediately	19.7%	55
2 - 5 minutes	24.0%	67
5 - 10 minutes	18.6%	52
More than 10 minutes	14.0%	39
I didn't drive	23.7%	66

A combined 62.3% of respondents found parking in less than 10 minutes with 19.7% finding parking immediately, 24% finding parking in 2-5 minutes, and 18.6% finding parking in 5-10 minutes. 14% of respondents took more than 10 minutes to find parking. 23.7% of respondents did not drive.

7. Where did you park?

	Response Percent	Response Count
Public parking lot	21.1%	59
Public parking structure (garage, for example)	18.3%	51
On the street	32.3%	90
Private parking lot	3.6%	10
Used valet	0.4%	1
I didn't drive	24.4%	68

When traveling to downtown Mountain View, 32.3% of respondents parked on the street, 39.4% parked in public parking lots or structures, 3.6% parked in a private parking lot, and 0.4% used valet. 24.4% of respondents did not drive.

8. How far from your destination did you park?

	Response Percent	Response Count
Within 1 block	24.0%	67
1 - 2 blocks	28.0%	78
3 - 4 blocks	21.5%	60
4 or more blocks	3.9%	11
I didn't drive	22.6%	63

A combined 73.5% of respondents parked within 4 blocks of their destination with 24% parking within 1 block, 28% parking within 1-2 blocks, and 21.5% parking within 3-4 blocks of their destination. 3.9% of respondents parked 4 or more blocks from their destination. 22.6% of respondents did not drive.

9. How would you rate your satisfaction with parking in downtown Mountain View?

	Response Percent	Response Count
Not satisfied	36.2%	101
Neutral	26.5%	74
Somewhat satisfied	26.9%	75
Very satisfied	10.4%	29

A combined 37.3% of respondents were somewhat or very satisfied with parking in downtown Mountain View. 36.2% of respondents answered that they were not satisfied. A total of 26.5% of respondents were neutral in their feelings towards parking in downtown Mountain View.

10. When deciding to park, what is the most important factor? (place most important at the top and least at the bottom)

Average priorities over 280 responses

1. Ease of finding a space
2. Location
3. Price
4. Safety/Security
5. Other

10 a. If you "other" was a top factor, please specify.

Answered : 25

Skipped : 255

The average ranking of respondents' priorities when deciding to park were ease of finding a space, location, price, safety/security, and other. Of the 25 specified responses to the "other" category, trends in answers of priorities when deciding to park included providing charging stations for electric vehicles, accessibility for handicapped drivers, and the support of alternative modes of transportation.

11. Do you think there is enough parking in downtown Mountain View?

	Response Percent	Response Count
Yes	33.2%	92
No	66.8%	185

66.8% of respondents do not think there is enough parking in downtown Mountain View.

12. I am willing to pay for parking if it means I can stay in a parking space for a longer amount of time.

	Response Percent	Response Count
Strongly agree	13.2%	37
Agree	20.4%	57
Neutral	20.7%	58
Disagree	26.1%	73
Strong disagree	19.6%	55

A combined 33.6% of respondents agreed or strongly agreed with the statement, "I am willing to pay for parking if it means I can stay in a parking space for a longer amount of time." 45.7% of respondents disagreed or strongly disagreed with the statement. 20.7% were neutral towards paid parking and staying in that parking spot for a longer amount of time

13. I am willing to pay for parking if it means I will more easily find a parking space.

	Response Percent	Response Count
Strongly agree	18.6%	52
Agree	31.4%	88
Neutral	14.3%	40
Disagree	18.9%	53
Strongly disagree	16.8%	47

35.7% of respondents disagreed or strongly disagreed with the statement, "I am willing to pay for parking if it means I will more easily find a parking space." A combined 50% of respondents agreed or strongly agreed with the statement while 14.3% were neutral towards paid parking and the ease of finding a parking space.

14. Is there anything you would change about parking in downtown Mountain View?

Answered : 186

Skipped : 94

Of the 186 specified answers to what respondents would change about parking in downtown Mountain View, trends emerged regarding:

- increasing enforcement of parking and extending enforcement to residential streets,
- adopting technology to indicate where parking is available,
- improving parking signage,
- adding more electric vehicle charging locations,
- promoting and supporting alternative modes of transportation,
- adding underground parking,
- increasing the amount of parking available, and
- implementing demand-based pricing of parking areas.

15. If paid parking is implemented, what would be the best use of surplus revenue? (Place the best use at the top and the least important use at the bottom)

Average priorities over 280 responses

1. Walkability and pedestrian safety improvements
2. Additional parking supply, such as new garage or lots
3. Public transportation improvements and mode of transportation alternatives
4. New parking signage and technology
5. Other

15 a. If Other was a top priority, please specify:

Answered : 50

Skipped : 230

The average ranking of respondents' top priorities when indicating possible uses of surplus parking revenue were walkability and pedestrian safety improvements; additional parking supply, such as new garage or lots; public transportation improvements and mode of transportation alternatives; new parking signage and technology; and other. Of the 50

specified responses to the “other” category, trends in answers included increasing safety and infrastructure surrounding bicycle use, implementing a residential parking permit program or even subsidizing parking permits for Mountain View residents, and pricing parking such that there is not a surplus.

Appendix C. Employee Survey Results

The City and DIXON were committed to ensuring that members of the community were given a chance to voice their opinions, recommendations and concerns. As a result, DIXON conducted a total of four days of "knock and talk surveys" to speak with employees of downtown businesses in person to better understand parking issues from a group of stakeholders that are often under-represented in the decision-making process. As employees and business owners are the most common visitor of downtown Mountain View, the City viewed their input as invaluable and an import piece of the stakeholder outreach conducted during the Paid Parking Study.

The surveys were conducted during August and September, with a total of 85 employees from 70 downtown businesses participating in the Study. Several businesses in the City were not included in the survey because employees were too busy to participate, the business was closed, or employees chose not to participate in the survey. However, DIXON was still able to collect surveys from a variety of downtown businesses including, restaurants, salons, grocery stores and retailers which provided the City and DIXON with multiple perspectives on the parking issues that affect the employees of downtown, and their recommendations. During the September site visit, DIXON was also able to conduct the surveys during the evening to include the input of employees and businesses that were not available, or open, earlier in the day.

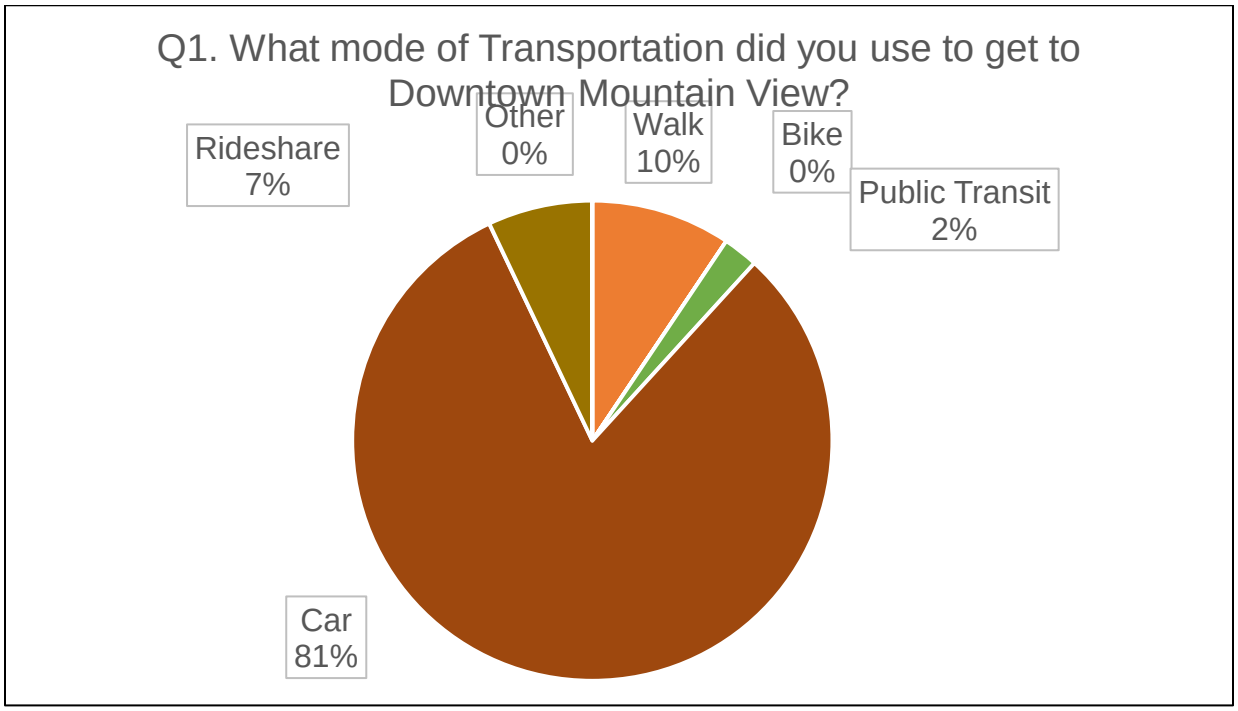
Total results from the August and September collection periods and the combined totals are below. Main issues that were raised by employees included:

- Dedicated employee parking
- More long-term parking options
- Lower employee permit prices
- Passenger loading and unloading zones
- Rideshare pick-up and drop-off locations
- Increased parking supply

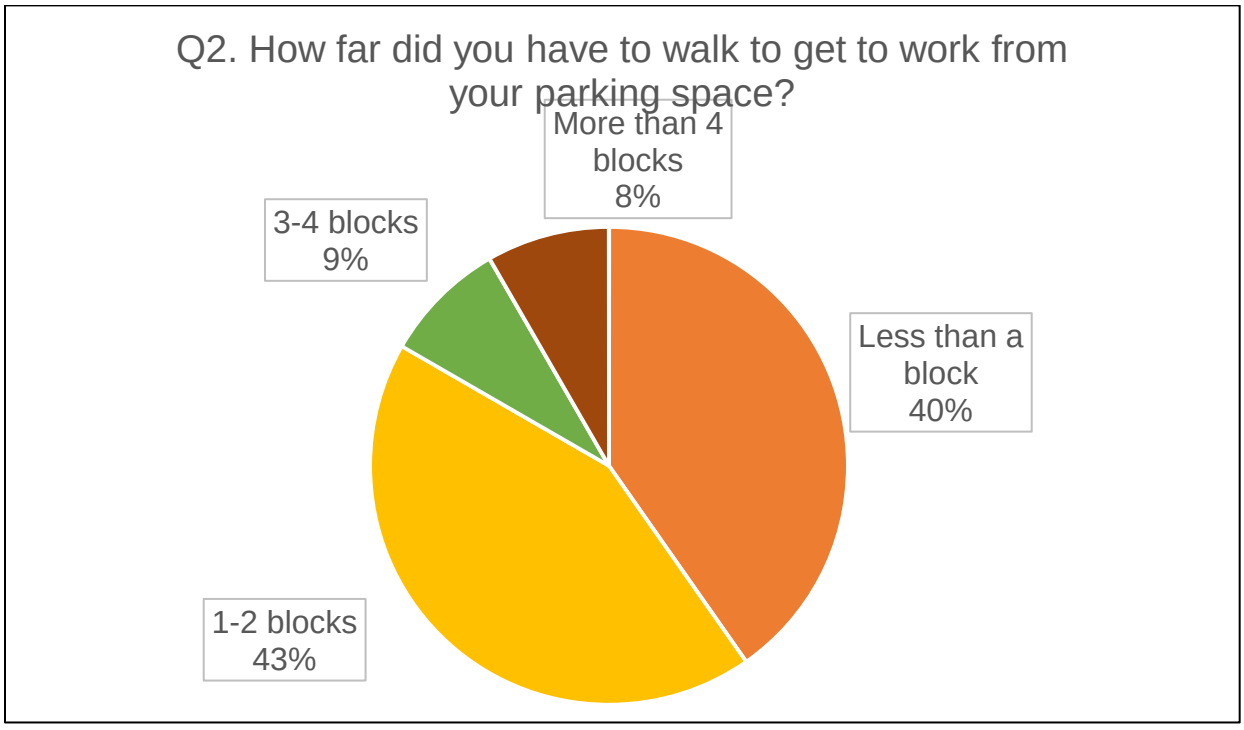
81 percent of employees surveyed drive their vehicle to work, 83 percent parked within 2 blocks of their place of work, 33 percent parked on-street and 74 percent believed that there was not enough parking available for customers. Employees were nearly split on if they thought customers would pay for parking. 45 percent believed that they would be unwilling to pay while 40 percent thought that customers would pay for parking and 15 percent were unsure what customers would do.

Participating Businesses:

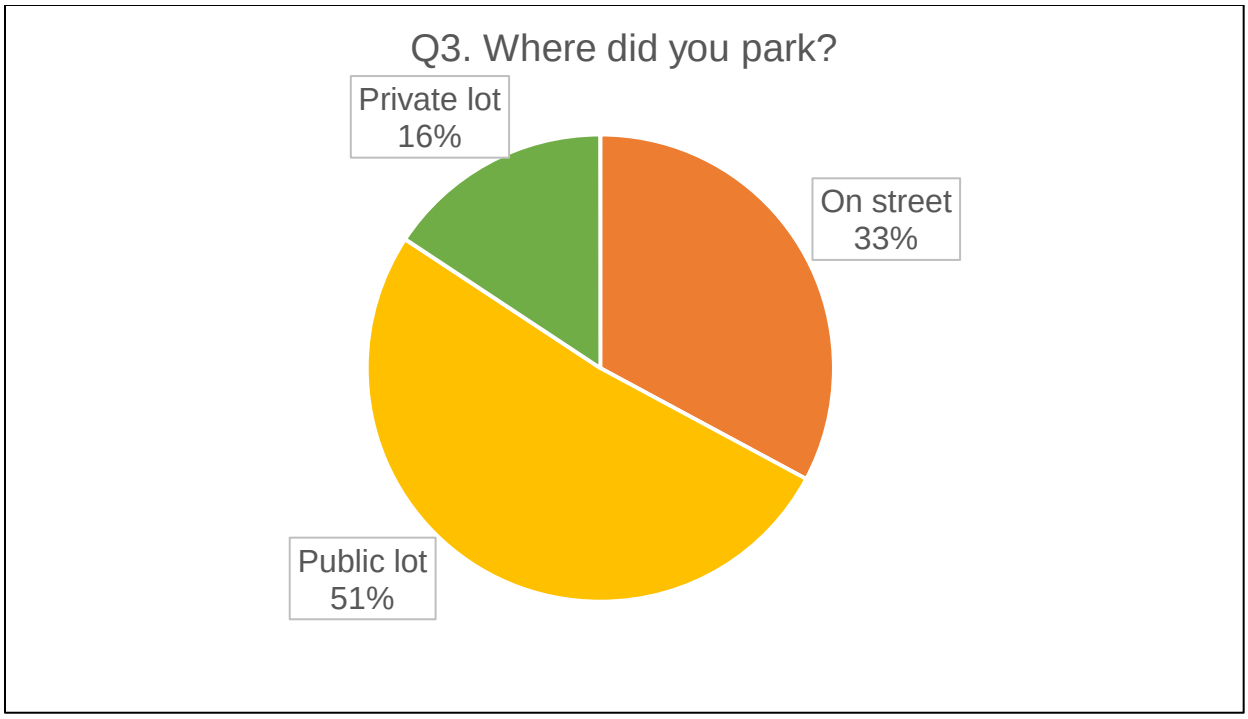
- 278 Castro
- Alexander's Patisserie
- Amarin Thai Cuisine
- Asian Box
- Ava's Downtown Market and Deli
- Biryaniz
- Bonchon
- Books Inc.
- Bushido
- Butterfly
- Café Baklava
- Chop and Pub
- Cognition Cyclery
- DZ Pizzeria
- E and W Natural Way Health Food
- East and West Bookshop
- Easy Foods Company
- Ephesus
- Essence Salon
- Eureka
- Fast Repair
- Fleur de Lis
- GBI Beads
- Hong Kong Bakery and Café
- Hong Kong Bistro
- Jane's Beerstore
- K Pot Grill
- Khuu Dentistry
- La Espuela
- La Fontaine
- Le Plonc
- Maison Alyzee
- Masa Sushi
- Mediterranean Grille
- Molly Magees
- Mongolian Hot Pot
- Mountain View Funeral & Cremation
- Olympus Café
- One oz. Coffee
- OPAL
- Oren's Hummus
- Peet's Coffee
- Perfect Salon
- Pho Hoa/Jazen Tea
- Pokeworks
- Pure Storage
- QBB
- Queen House
- Quora
- Real Estate Dev. Co @ 655 Castro
- Red Rock
- Ristorante Don Giovanni
- Rocket Fizz
- Savvy Cellar
- Scratch
- Site for Sore Eyes
- Steins Beer Garden
- Stephens Green
- Sweethoney Desert
- Tapioca Express
- Tea Era
- Teaspoon
- Treats on Castro
- UPS Store
- Valley View Dental Care
- Vasso Azzurro
- Vietnamese Noodle Soup
- Vitality Bowls
- William Maston Architecture
- XANH



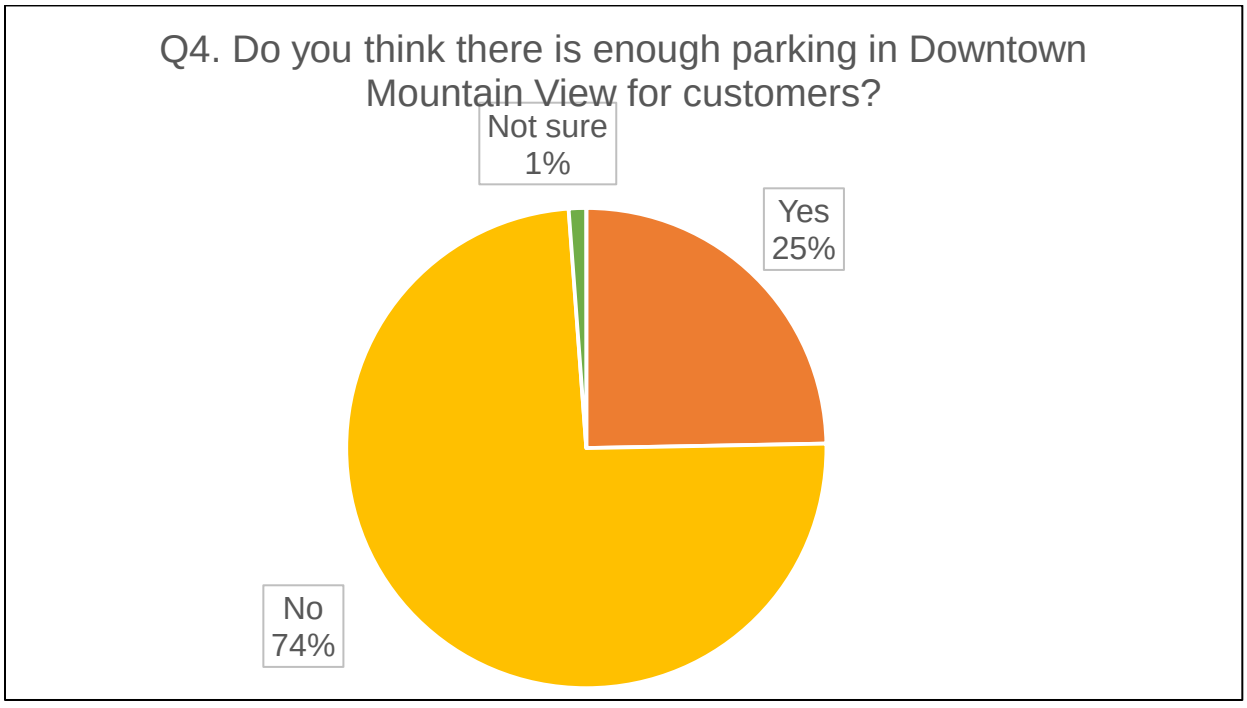
Overall, 81% of employees surveyed drove their car to work. Only 2% used public transit and 10% walked. 7% of employees used rideshare to get to work which includes carpooling.



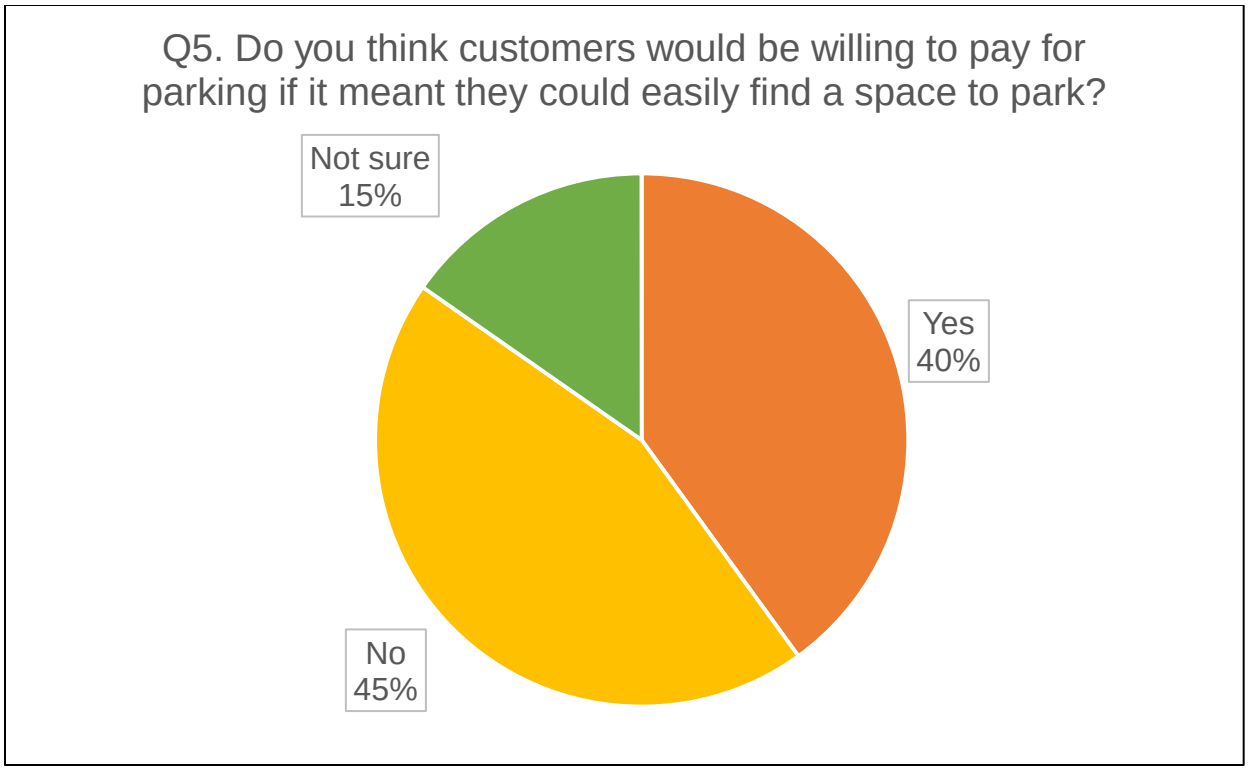
83% of employees parked within 2 blocks of their workplace while 17% parked beyond 2 blocks from work.



84% of employees used public parking spaces which includes parking lots and on-street parking. Only 16% of employees surveyed parked in private parking spaces.



Almost three quarters of employees believed that there was not enough parking for customers in downtown. 25% of employees surveyed stated that there was enough parking in Downtown Mountain View for customers.



Employees overall were mostly split on if they believed customers would be willing to pay for parking. 45% said no, 40% said yes while 15% were unsure what customers would do.

Q6. If you could change, fix, or improve anything about parking in Downtown Mountain View, what would you do?

- (25) Build more parking
- (9) More long-term parking options/increase time limits
- (8) Dedicated employee parking areas
- (6) Lower cost of employee permits
- (5) Rideshare pick-up/drop-off zones/passenger loading zones
- (4) More/improved signage
- (4) No changes
- (4) Paid parking
- (3) More ADA accessible parking
- (2) Encourage use of alternate modes of transportation
- Add short-term parking spaces
- Close Castro St. to cars
- Convert some parallel parking to angled parking
- Crosswalk on Shoreline needs better lighting
- Evening enforcement
- Improve walkability
- Incentivize development
- More or better public transit

- More valet signage
- No parking on Castro
- Shuttle with remote parking for office workers, 5-minute maximum ride
- Time limits in residential areas
- Validation program

Appendix D. April 2018 Downtown Parking Analysis

Wednesday – 04/25/18	Spaces		10 AM	12 PM	2 PM	4 PM	6 PM	8 PM
Parking Lot 2	104		62%	98%	89%	98%	100%	100%
Parking Lot 4	88		39%	92%	75%	82%	100%	98%
Parking Lot 5	94		77%	93%	80%	98%	98%	91%
Parking Lot 6	98		96%	94%	93%	100%	100%	99%
Parking Lot 7	94		72%	99%	63%	100%	100%	93%
Parking Lot 8	61		25%	79%	48%	41%	100%	72%
Parking Lot 9	90		91%	83%	82%	66%	21%	7%
Parking Lot 11	77		34%	100%	100%	87%	100%	96%
Parking Lot 12	160		24%	93%	64%	48%	84%	81%
Parking Structure 1	313		78%	99%	96%	77%	90%	89%
Parking Structure 3	405		34%	90%	60%	59%	47%	46%

Thursday – 04/26/18	Spaces		10 AM	12 PM	2 PM	4 PM	6 PM	8 PM
Parking Lot 2	104		71%	100%	88%	97%	95%	100%
Parking Lot 4	88		70%	90%	98%	86%	100%	100%
Parking Lot 5	94		62%	94%	78%	97%	99%	98%
Parking Lot 6	98		53%	98%	88%	48%	74%	100%
Parking Lot 7	94		77%	100%	97%	100%	100%	85%
Parking Lot 8	61		3%	59%	43%	34%	100%	85%
Parking Lot 9	90		87%	99%	90%	92%	98%	98%
Parking Lot 11	77		32%	100%	60%	99%	100%	100%
Parking Lot 12	160		38%	85%	38%	37%	100%	49%
Parking Structure 1	313		100%	100%	88%	76%	100%	81%
Parking Structure 3	405		49%	72%	58%	52%	59%	75%

Friday – 04/27/18	Spaces		10 AM	12 PM	2 PM	4 PM	6 PM	8 PM
Parking Lot 2	104		54%	100%	92%	100%	100%	100%
Parking Lot 4	88		69%	100%	88%	82%	100%	100%
Parking Lot 5	94		78%	95%	88%	87%	95%	97%
Parking Lot 6	98		78%	100%	97%	97%	98%	100%
Parking Lot 7	94		98%	99%	86%	100%	100%	99%
Parking Lot 8	61		16%	100%	43%	30%	72%	100%
Parking Lot 9	90		93%	99%	93%	96%	100%	99%
Parking Lot 11	77		18%	86%	79%	66%	100%	100%
Parking Lot 12	160		36%	93%	23%	44%	94%	93%
Parking Structure 1	313		75%	99%	88%	82%	100%	100%
Parking Structure 3	405		39%	81%	60%	50%	52%	87%

Saturday – 04/28/18	Spaces		10 AM	12 PM	2 PM	4 PM	6 PM	8 PM
Parking Lot 2	104		47%	100%	87%	86%	97%	98%
Parking Lot 4	88		31%	100%	88%	95%	100%	99%
Parking Lot 5	94		71%	91%	84%	76%	100%	98%
Parking Lot 6	98		30%	73%	94%	66%	81%	99%
Parking Lot 7	94		74%	78%	73%	55%	56%	100%
Parking Lot 8	61		13%	23%	54%	39%	98%	95%
Parking Lot 9	90		13%	51%	63%	29%	93%	100%
Parking Lot 11	77		19%	65%	74%	70%	100%	100%
Parking Lot 12	160		13%	29%	48%	45%	57%	76%
Parking Structure 1	313		22%	45%	36%	33%	85%	98%
Parking Structure 3	405		8%	18%	25%	14%	21%	30%