



Office of the City Manager

CONSENT CALENDAR  
June 27, 2023

To: Honorable Mayor and Members of the City Council  
 From: Dee Williams-Ridley, City Manager  
 Submitted by: Liam Garland, Director, Public Works  
 Subject: goBerkeley SmartSpace Pilot Program Evaluation & Next Steps

RECOMMENDATION

1. Adopt a Resolution directing staff to maintain SmartSpace visitor paid parking in the Southside and employee parking permits in the Elmwood; and
2. Adopt a Resolution updating existing schedule of parking violations and fines to include parking violations and late payment penalties related to pay-by-plate pay stations in the SmartSpace area and enforcing transit-only lanes, and rescinding Resolution 68,902-N.S.
3. Direct staff to incorporate into existing Residential Preferential Parking (RPP) referral(s) an assessment of the use of visitor paid parking and/or employee parking permits in other RPP areas.<sup>1</sup>

SUMMARY

The recommended actions follow the conclusion of the goBerkeley SmartSpace pilot program, which studied how to reduce the “two-hour shuffle” in residential areas adjacent to the Elmwood and Southside/Telegraph commercial districts.<sup>2</sup> The two-hour shuffle occurs when those without permits re-park their vehicles every two hours to avoid citation for exceeding posted residential time limits. Following Council approval on June 28, 2022, the City implemented employee parking permits in the Elmwood and visitor paid parking in a part of RPP Area I in the Southside. The strategies reduced the number of shuffling vehicles by approximately one-half in the Elmwood and one-third in the Southside, with CO2 reductions of approximately one-third in both areas. Based on these findings and public outreach, staff recommend the following:

- **Elmwood:** Keep employee parking passes.
- **Southside:** Maintain visitor paid parking.
- Assess expanding visitor paid parking and/or employee passes in other locations as part of an existing RPP related referral(s), and work with business districts to facilitate employer transit pass programs as staff capacity allows.

FISCAL IMPACTS OF RECOMMENDATION

<sup>1</sup> “Residential Preferential Parking (RPP) Program Expansion/Reform (PRJ0016358) and for West Berkeley Neighborhoods Within Two Blocks of Commercial Corridors (DMND0004053)

<sup>2</sup> Berkeley City Council Resolution No. 67,382-N.S. <https://bit.ly/3MfXO3q>

The SmartSpace pilot program is funded by a \$950,000 Congestion Management and Air Quality (CMAQ) grant from the Federal Highway Administration (FHWA) via the Metropolitan Transportation Commission (MTC). The City is reimbursed for 80% of all eligible non-infrastructure pilot program expenses, with 20% supplemented by local match funding.

Elmwood employee parking permits generated approximately \$5,500. Southside visitor paid parking generated approximately \$80,400 between November 2022 and April 2023. If Council approves the recommendation to maintain visitor paid parking, staff will continue to adjust rates periodically to increase availability. Because parking rate changes are responding to future parking occupancy, revenues are difficult to forecast but expected to cover incremental costs of the parking program.

### CURRENT SITUATION AND ITS EFFECTS

On June 28, 2022, Council approved a package of parking management strategies for the SmartSpace pilot. After making a few adjustments in fall and winter 2022, staff implemented the following:

- **Elmwood:** Sell up to 120 new parking permits for local employees in adjacent RPP areas.
- **Southside:** Implement paid parking for visitors in a part of RPP Area I.
- **Both pilot areas:** Facilitate a transit pass program for employees of local businesses.

### Implementation

#### **Elmwood Employee Parking Permits**

Staff refined the pilot employee permit program after further analysis and discussion with the Elmwood Merchants Association. To reduce potential impacts on residents and visitors, permits would be assigned to specific blocks, like Merchant Permits. In turn, the maximum number of permits was reduced from 220 to 120. Staff developed an allocation process modeled after the Neighborhood Serving Community Facility program, limiting the total number of permits to no more than 60% of full-time equivalent staff.<sup>3</sup> Merchants also had to fulfill Commute Benefit requirements to purchase permits.<sup>4</sup>

As of May 2023, 51 transferable dashboard permits for specific blocks in RPP Areas A, B, D, or L were purchased by a total of 15 businesses. Permits were valid from January 1 to July 31, 2023 and cost \$108 each, prorated for seven months from the \$185 Merchant Permit annual fee.

#### **Southside Visitor Paid Parking**

<sup>3</sup> Berkeley Municipal Code, Section 14.72.105 Neighborhood-Serving Community Facility Permits, <https://berkeley.municipal.codes/BMC/14.72.105>

<sup>4</sup> Berkeley Municipal Code, Chapter 9.88 Commuter Benefit Program, <https://berkeley.municipal.codes/BMC/9.88>

The Southside visitor paid parking pilot program launched on October 17, 2022. Payment was accepted via new license plate entry pay stations and ParkMobile zone #19800. Prices for visitors without RPP Area I permits were initially set at \$2.00 per hour, up to eight (8) hours, from Monday to Friday, 8 a.m. to 7 p.m.

Staff collected data in February 2023 to determine whether the new visitor pricing had improved parking availability. At the 3pm weekday peak hour, nearly all block faces were still above the optimum 65-85% occupancy rate (1-2 open spaces).<sup>5</sup> In accordance with goBerkeley Program guidelines, prices were raised to \$2.50/hour on Monday, March 6, 2023 to improve availability.

### **AC Transit EasyPass Programs**

The AC Transit EasyPass Program allows businesses to offer discounted transit passes as a benefit of employment, whether or not an employee uses transit.<sup>6</sup> In fall 2022, staff worked with AC Transit and Elmwood merchants to set up an EasyPass Program. Ultimately, not enough Elmwood merchants were interested and a program was not established. A similar effort with the Telegraph Business Improvement District was postponed in early 2023 due to staff capacity shortages.

### Evaluation & Key Findings

The City collected data before and after the pilot launched to test whether the strategies achieved project goals. Some key findings follow below. For more detail, refer to Attachment 4.

#### **Goal: Reduce occurrences of, and greenhouse gas emissions from, the “two-hour shuffle”**

- The number of vehicles observed doing the “two-hour shuffle” dropped by nearly one-half (from 61 to 33) in the Elmwood and by one-third (from 43 to 29) in the Southside on an average weekday. These reductions may in part reflect employees who were assigned parking permits in the Elmwood, and/or regular visitors to the Southside paying to park for up to eight hours in the pilot zone.
- CO2 emissions from shuffling dropped by approximately one-third in each area. Assuming most shufflers in the Elmwood were local employees and in the Southside were visitors to UC Berkeley, the estimated annual CO2 reduction from fewer observed shuffling vehicles is -286 kg in the Elmwood and -153 kg in the Southside.

#### **Goal: Increase parking availability in residential areas**

- Parking remained consistently full in the Southside pilot area, even after prices went into effect. Excluding permit holders, the number of block faces at the target

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<sup>5</sup> A block face is defined as one side of one street, e.g., the north side of Center Street between MLK Jr. Way and Milvia Street.

<sup>6</sup> AC Transit EasyPass Program, <https://www.actransit.org/easypass>

goBerkeley occupancy rate of 65-85% hovered between zero and one, with most blocks exceeding the target rate. Further price adjustments may be needed to achieve optimum occupancy in this area.

- Parking availability in the Southside “spillover” areas—i.e., streets with unpaid RPP two-hour limits within one block of the paid parking pilot—did not consistently change. In fact, slightly more block faces had better parking availability than worse after the paid parking pilot was implemented.
- Parking availability increased in the Elmwood pilot area between 2021 and 2023 at the weekday peak hour, though it is not clear to what extent the new parking permits may have played a role.

Public Feedback & Recommended Next Steps

Staff presented initial findings and a menu of potential next steps at a hybrid in-person and online public meeting on May 2, 2023. While the meeting was sparsely attended, it included residents and at least one merchant from each pilot area. A Zoom poll was used to gauge support for proposed next steps, but in-person participation was difficult to incorporate into the final tallies. Overall, most participants supported keeping both pilot treatments in place at a minimum, with some also supporting exploring expansion. Elmwood residents in particular advocated for keeping the employee parking permits as a quality of life improvement for service workers doing the two-hour shuffle outside their homes during the day. Still, a few meeting participants remained skeptical of the changes and advocated for reverting to pre-pilot conditions.

At the April 21, 2023 Elmwood Business Association meeting, feedback from merchants was positive, with attendees sharing that the employee permits were “wildly popular and effective,” and an “enormous improvement [for Elmwood] small businesses.”

Below are next steps for each pilot area, with recommendations based on the evaluation and public feedback indicated with an asterisk (\*):

<b>Elmwood</b>	<b>Southside</b>	<b>Citywide</b> <i>(per staff capacity, analysis, and public outreach)</i>
<i>* Keep employee parking permits.</i>	<i>* Keep visitor paid parking in place, and make periodic price adjustments for availability.</i>	<i>* Explore expanding RPP visitor paid parking and/or employee passes to other locations</i>
Phase out employee parking permits.	Remove visitor paid parking and revert to unpaid two-hour limit.	<i>* Work with business districts to introduce employer transit pass programs.</i>

The recommendations to Council reflect these findings:

- **Resolution - SmartSpace Findings & Recommendations:** Directs staff to maintain employee parking permits in the Elmwood and visitor paid parking in the Southside area.
- **Resolution - Schedule of Parking Violations and Late Fines:** Augments current violation schedule to include citations and late fines related to pay-by-plate pay stations, which are used in the Southside visitor paid parking area.<sup>7</sup> New citation amounts are in line with existing analogous fines.
- **Direction to staff** to incorporate into existing RPP referral(s) an assessment of the use of visitor paid parking and/or employee parking permits in other RPP areas.

### BACKGROUND

Over the years, City staff have received feedback about the “two-hour shuffle” in residential areas adjacent to commercial districts. The two-hour shuffle occurs when those without permits re-park their vehicles every two hours to avoid being cited for parking longer than posted residential time limits. In 2015, the City was awarded a \$950,000 grant from the Metropolitan Transportation Commission (MTC) to specifically study the two-hour shuffle. The goals of the resulting goBerkeley Residential Shared Parking Pilot (aka “goBerkeley SmartSpace”) are:

- Reduce occurrences of the “two-hour shuffle” in residential neighborhoods, alleviating inconvenience for local employees and reducing greenhouse gas emissions associated with the behavior;
- Increase parking availability on residential streets;
- Increase information about and/or access to alternatives to driving; and
- Improve customer service and technology related to the City’s parking program.

Public engagement began in 2019 with the launch of a project website<sup>8</sup>, public surveys, and the formation of a Community Advisory Group. Unfortunately, the project was delayed due to the coronavirus pandemic, and outreach resumed in mid-2021. Staff introduced initial concepts for visitor paid parking in both Elmwood and Southside at virtual meetings in November 2021. Residents and merchants strongly opposed the concepts, and offered suggestions for different strategies. In December 2021 staff returned with new pilot proposals derived from or modified by community input. In spring 2022 staff refined the proposals, which were prioritized by the public in April 2022 and then approved for implementation by Council on June 28, 2022.

The goBerkeley SmartSpace pilot is a Strategic Plan Priority Project, advancing our goals to:

- provide state-of-the-art, well-maintained infrastructure, amenities, and facilities.

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<sup>7</sup> Also adds a violation for parking or loading in a Transit-Only Lane, addressing an omission and supporting enforcement of the upcoming Durant Transit Lane and Southside Complete Streets projects.

<sup>8</sup> Project website available at <https://smartspace.goberkeley.info>.

- be a global leader in addressing climate change, advancing environmental justice, and protecting the environment.
- be a customer-focused organization that provides excellent, timely, easily-accessible service and information to the community.

#### ENVIRONMENTAL SUSTAINABILITY AND CLIMATE IMPACTS

This pilot program tested ways to reduce greenhouse gas emissions among commuters to the Elmwood and Southside/Telegraph commercial districts, particularly those parking in nearby residential neighborhoods. Reducing greenhouse gas emissions produced by vehicular traffic is one of the City’s 2009 Climate Action Plan goals.

Staff observed that the number of vehicles doing the “two-hour shuffle” in both pilot areas dropped after the pilot was implemented. The number of shuffling vehicles on a weekday was reduced by approximately one-half in the Elmwood and one-third in the Southside area, resulting in about a one-third reduction in CO2 emissions from this behavior in each area.

#### RATIONALE FOR RECOMMENDATION

The SmartSpace pilot program was modified to reflect public feedback about how best to reduce the “two-hour shuffle” in residential neighborhoods. Staff analysis of “two-hour shuffle” behavior before and after the pilot implementation suggests that the strategies successfully reduced the number of shuffling vehicles and associated carbon dioxide emissions, accomplishing a primary goal of the study.

Keeping these strategies in place should maintain the reduced number of shuffling vehicles observed in the Southside and Elmwood. Moving forward, the two strategies tested under this pilot provide more tools the City could use to manage visitor parking demand in RPP areas. Future expansion of employee permits and/or visitor paid parking where feasible could further reduce excess emissions from the two-hour shuffle in support of City climate goals.

#### ALTERNATIVE ACTIONS CONSIDERED

Council could choose not to maintain any of the pilot elements; or maintain the program in the Elmwood but not in the Southside, or vice versa. However, removing any of the pilot elements would probably result in more shuffling behavior. Also, pending future referral prioritization, it is not known when employee permits or visitor paid parking could be expanded elsewhere in the City. While providing a benefit, issuing employee permits in the Elmwood alone disproportionately benefits these workers, while others elsewhere continue to do the “two-hour shuffle” without an existing remedy.

#### CONTACT PERSON

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Attachments:

- 1: Resolution: goBerkeley SmartSpace Evaluation & Next Steps
- 2: Resolution: Schedule of Parking Violations and Late Fees
- 3: Summary of Pilot Implementation & Key Findings

RESOLUTION NO. ##,###-N.S.

GOBERKELEY SMARTSPACE PILOT PROGRAM FINDINGS AND NEXT STEPS

WHEREAS, the Council of the City of Berkeley accepted a \$950,000 Congestion Mitigation and Air Quality Improvement (CMAQ) grant from the Federal Highway Administration (FHWA) under the Metropolitan Transportation Commission's (MTC) Climate Initiatives Program for the goBerkeley Residential Shared Parking Pilot (aka goBerkeley SmartSpace) via Resolution No. 67,382-N.S.; and

WHEREAS, the goBerkeley SmartSpace pilot program studied ways to reduce the inconvenience and greenhouse gas emissions associated with the "two-hour shuffle," among other goals, in Residential Preferential Parking (RPP) areas adjacent to the Elmwood and Southside/Telegraph commercial districts; and

WHEREAS, Council adopted staff recommendations to implement new parking permits for Elmwood employees, implement visitor paid parking in parts of RPP Area I in the Southside, and facilitate transit pass programs for employees of local businesses via Resolution No. 70,444-N.S.; and

WHEREAS, staff launched visitor paid parking in October 2022, wherein visitors could pay to park for up to eight hours at a rate of \$2.00 per hour, and where prices were increased to \$2.50 per hour in March 2023 after analysis showed parking was still too full; and

WHEREAS, staff also issued approximately 50 employee parking permits to local businesses in the Elmwood in January 2023, with permits assigned for specific blocks to reduce potential resident parking impacts; and

WHEREAS, not enough Elmwood merchants were interested in setting up a transit pass program, and a similar effort in Telegraph was put on hold due to staff shortages; and

WHEREAS, staff found that the number of vehicles doing the "two-hour shuffle" on a weekday fell by nearly half in the Elmwood and nearly one-third in the Southside, with associated CO2 emissions decreasing by approximately one-third in each area, achieving the primary goal of the project.

NOW THEREFORE, BE IT RESOLVED by the Council of the City of Berkeley that in light of these findings the City Manager is authorized to maintain RPP visitor paid parking in the Southside and employee parking permits in the Elmwood.



RESOLUTION NO. ##,###-N.S.

ESTABLISHING A NEW SCHEDULE OF PARKING VIOLATIONS AND FINES FOR PARKING VIOLATIONS AND LATE PAYMENT PENALTIES; AND RESCINDING RESOLUTION NO. 68,902-N.S.

WHEREAS, the State of California Vehicle Code Section 40203.5 states “the schedule of parking penalties for parking violations and late payment penalties shall be established by the governing body of the jurisdiction where the notice of violation is issued;” and

WHEREAS, the Council enacted Ordinance No. 7,829-N.S. on July 12, 2022 to include provisions for the operation and use of Pay-by-Plate pay stations for parking payment;

WHEREAS, staff subsequently identified the need to establish specific parking violations and late payment penalties associated with use and/or misuse of Pay-by-Plate pay stations in concurrence with this Ordinance; and

WHEREAS, staff identified the need to include specific parking violations and late payment penalties for vehicles parking in transit-only lanes, to support other transportation projects in the Southside neighborhood; and

WHEREAS, in June 2019, the City Council adopted Resolution No. 68,902-N.S. establishing a new schedule of fines for parking violations to enable enforcement of new “Enhanced Fine Areas” around the UC Berkeley campus on Cal football days.

NOW THEREFORE, BE IT RESOLVED by the Council of the City of Berkeley that a new schedule of parking violations and late payment penalties is established, as set forth in Exhibit A, which includes fines and late penalties for violations of BMC Section 14.24.230 pertaining to parking in a transit-only lane; and BMC Sections 14.52.050 C and 14.52.060 C pertaining to payments for parking at Pay-by-Plate pay stations; and

BE IT FURTHER RESOLVED that Resolution No. 68,902-N.S. is hereby rescinded.

Exhibits

A: Schedule of Fines and Late Payment Penalties for Parking Violations

B: List of New Parking Violations

## Exhibit A: Schedule of Fines and Late Payment Penalties for Parking Violations

<b>Code</b>	<b>Section</b>	<b>Violation Description</b> (For citations issued to a vehicle) FD = Football Game Days 9 a.m. to 11 p.m. FD fines = 50% higher on most violations & 100% higher for violations in RPP Zones A, B, D	<b>Fine Amount</b>	<b>On Day 28 +\$30</b>	<b>On Day 47 +\$50</b>
BMC	6.24.020	Off-St Rsrv Pkg No Permit Displayed	\$48	\$78	\$128
BMC	6.24.020	FD Off-St Rsrv Pkg No Permit Displayed			
BMC	6.24.020	Non-Electric Vehicle Parked in Electric Vehicle Space	\$35	\$65	\$115
BMC	6.24.060	Electric Vehicle Exceeding EV Parking Space Time Limit	\$30	\$60	\$110
BMC	6.24.020	Electric Vehicle Not Actively Charging in EV Parking Space	\$35	\$65	\$115
BMC	6.24.093	P&D Dispensing Mach Tkt Not Displayed	\$43	\$73	\$123
BMC	6.24.093	FD P&D Dispensing Mach Tkt Not Displayed	\$65	\$95	\$145
BMC	6.24.096	Improper Display of P&D Disp Mach Tkt	\$43	\$73	\$123
BMC	6.24.096	FD Improper Display of P&D Disp Mach Tkt	\$65	\$95	\$145
BMC	6.24.100 B	P&D Station Expired Time	\$43	\$73	\$123
BMC	6.24.100 B	FD P&D Station Expired Time	\$65	\$95	\$145
BMC	6.24.103 B	Time Limits Enforced at Inoperable P&D Sta	\$43	\$73	\$123
BMC	6.24.103 B	FD Time Limits Enforced at Inoperable P&D Sta	\$65	\$95	\$145
BMC	6.24.130	Off-St Facility: Motorcycle Zone Only	\$48	\$78	\$128
BMC	6.24.130	Off-St Facility: Pkg Outside Markings	\$48	\$78	\$128
BMC	6.24.130	FD Off-St Facility: Pkg Outside Markings	\$72	\$102	\$152
BMC	6.24.130	Off-St Facility: Disabled Zone	\$288	\$318	\$368
BMC	6.24.130	FD Off-St Facility: Disabled Zone	\$288	\$318	\$368
BMC	6.24.130	Off-St Facility: Restricted Load Zone	\$48	\$78	\$128
BMC	6.24.130	FD Off-St Facility: Restricted Load Zone	\$72	\$102	\$152
BMC	6.24.130	Off-St Facility: Unmarked Space	\$48	\$78	\$128
BMC	6.24.130	FD Off-St Facility: Unmarked Space	\$72	\$102	\$152
BMC	6.24.140	Off-St Facility: Backed-In	\$48	\$78	\$128
BMC	9.52.140	Unattended Taxi Over 5 Min	\$91	\$121	\$171
BMC	13.52.040	Unauth Pkg on Private Property	\$41	\$71	\$121
BMC	14.24.070	Unauth Vehicle on Private Prop	\$64	\$94	\$144
BMC	14.24.230	No Parking/Loading in Transit-Only Lane	\$263	\$293	\$343
BMC	14.24.230	FD No Parking/Loading in Transit-Only Lane	\$263	\$293	\$343
BMC	14.36.030 A	No Parking on Divisnl Islands	\$55	\$85	\$135
BMC	14.36.030 A	FD No Parking on Divisnl Islands	\$83	\$113	\$163
BMC	14.36.030 C	No Parking Zone (Sign Posted)	\$64	\$94	\$144
BMC	14.36.030 C	FD No Parking Zone (Sign Posted)	\$96	\$126	\$176
BMC	14.36.030 C	No Parking Zone (Red Curb)	\$64	\$94	\$144
BMC	14.36.030 C	FD No Parking Zone (Red Curb)	\$96	\$126	\$176

Code	Section	Violation Description (For citations issued to a vehicle) FD = Football Game Days 9 a.m. to 11 p.m. FD fines = 50% higher on most violations & 100% higher for violations in RPP Zones A, B, D	Fine Amount	On Day 28 +\$30	On Day 47 +\$50
BMC	14.36.030 D	No Parking Street Sweeping (sign)	\$49	\$79	\$129
BMC	14.36.030 E	No Parking on Railroad Tracks	\$64	\$94	\$144
BMC	14.36.030 F	Hazard Obstructing Traffic	\$64	\$94	\$144
BMC	14.36.030 F	FD Hazard Obstructing Traffic	\$96	\$126	\$176
BMC	14.36.030 G	Construct: No Permit on Dashboard	\$64	\$94	\$144
BMC	14.36.030 G	FD Construct: No Permit on Dashboard	\$96	\$126	\$176
BMC	14.36.050	On Street 72 or More Consec hrs	\$60	\$90	\$140
BMC	14.36.060	Repair Vehicle on Street	\$52	\$82	\$132
BMC	14.36.080	Vehicle Parked in School Zone	\$51	\$81	\$131
BMC	14.36.090	Pkg on Grade Brake/Block Wheels	\$55	\$85	\$135
BMC	14.36.110	Emerg Prkg w/o Permit (Tow CVC 22651)	\$52	\$82	\$132
BMC	14.40.010	3 min Limit Zone Overtime	\$43	\$73	\$123
BMC	14.40.010	FD 3 min Limit Zone Overtime	\$65	\$95	\$145
BMC	14.40.010	5 min Limit Zone Overtime	\$43	\$73	\$123
BMC	14.40.010	FD 5 min Limit Zone Overtime	\$65	\$95	\$145
BMC	14.40.010	10 min Limit Zone Overtime	\$43	\$73	\$123
BMC	14.40.010	FD 10 min Limit Zone Overtime	\$65	\$95	\$145
BMC	14.40.010	12 min Limit Zone Overtime	\$43	\$73	\$123
BMC	14.40.010	15 min Limit Zone Overtime	\$43	\$73	\$123
BMC	14.40.010	24 min Limit Zone Overtime	\$43	\$73	\$123
BMC	14.40.010	FD 24 min Limit Zone Overtime	\$65	\$95	\$145
BMC	14.40.020	30 min Limit Zone Overtime	\$43	\$73	\$123
BMC	14.40.020	FD 30 min Limit Zone Overtime	\$65	\$95	\$145
BMC	14.40.030	1 hr Limit Zone Overtime	\$43	\$73	\$123
BMC	14.40.030	FD 1 hr Limit Zone Overtime	\$65	\$95	\$145
BMC	14.40.030	Faulty Meter Over 1 hr Limit	\$43	\$73	\$123
BMC	14.40.040	2 hr Limit Zone Overtime	\$43	\$73	\$123
BMC	14.40.040	FD 2 hr Limit Zone Overtime	\$65	\$95	\$145
BMC	14.40.040	Faulty Meter Over 2 hr Limit	\$43	\$73	\$123
BMC	14.40.050 A	Parallel Pkg Veh Outside Markers	\$48	\$78	\$128
BMC	14.40.050 B	Veh Facing Wrong Way 1-way St	\$48	\$78	\$128
BMC	14.40.050 B	FD Veh Facing Wrong Way 1-way St	\$72	\$102	\$152
BMC	14.40.050 B	Pkg Over 18" from Curb 1-way St	\$51	\$81	\$131
BMC	14.40.050 B	FD Pkg Over 18" fr Curb 1-way St	\$77	\$107	\$157
BMC	14.40.060 A	Diagonal Pkg Veh Outside Markers	\$51	\$81	\$131
BMC	14.40.060 B	Diagonal Pkg FW Over 6" from Curb	\$51	\$81	\$131
BMC	14.40.070 A	No Stopping 4-6pm (Tow CVC 22651)	\$64	\$94	\$144
BMC	14.40.070 A	FD No Stopping 4-6pm (Tow CVC 22651)	\$96	\$126	\$176
BMC	14.40.070 A	No Stopping 7-9am (Tow CVC 22651)	\$64	\$94	\$144
BMC	14.40.070 A	No Stopping 9pm-6am (Tow CVC 22651)	\$64	\$94	\$144
BMC	14.40.070 A	Posted No Stopping Tow Away	\$64	\$94	\$144

<b>Code</b>	<b>Section</b>	<b>Violation Description</b> (For citations issued to a vehicle) FD = Football Game Days 9 a.m. to 11 p.m. FD fines = 50% higher on most violations & 100% higher for violations in RPP Zones A, B, D	<b>Fine Amount</b>	<b>On Day 28 +\$30</b>	<b>On Day 47 +\$50</b>
BMC	14.40.090	RPP Zone No RPP Permit Displayed	\$49	\$79	\$129
BMC	14.40.090	FD RPP Zone A,B,D No Permit Dsply	\$98	\$128	\$178
BMC	14.40.090	RPP Zone K No Permit Displayed	\$57	\$87	\$137
BMC	14.40.090	RPP Zone RPP Permit Expired	\$49	\$79	\$129
BMC	14.40.090	FD RPP Zone A,B,D Permit Expired	\$98	\$128	\$178
BMC	14.40.090	RPP Zone Permit Improper Display	\$49	\$79	\$129
BMC	14.40.090	FD RPP A,B,D Permit Impropr Dsply	\$98	\$128	\$178
BMC	14.40.090	No RPP Permit Displayed in Enhanced Fine Area (Football Game Days)	\$225	\$255	\$305
BMC	14.40.130	Pkg/Standing in City Lots/Spaces	\$55	\$85	\$135
BMC	14.40.130 A	City Lot No Permit Displayed	\$57	\$87	\$137
BMC	14.40.130 C	Reserved Pkg No Permit Displayed	\$49	\$79	\$129
BMC	14.40.130 E	Reserved City Hall Pkg Towable	\$64	\$94	\$144
BMC	14.40.150 A	Car Parking in Motorcycle Area	\$51	\$81	\$131
BMC	14.40.150 B	Motorcycle Zone Overtime	\$51	\$81	\$131
BMC	14.40.160	DbI-Pkd Commer Vehicle Center St	\$60	\$90	\$140
BMC	14.44.020 B	Commer Zone No Permit (yellow)	\$57	\$87	\$137
BMC	14.44.020 B	FD Commer Zone No Permit (yellow)	\$86	\$116	\$166
BMC	14.44.020 A	Commercial Zone Overtime	\$57	\$87	\$137
BMC	14.44.020 A	FD Commercial Zone Overtime	\$86	\$116	\$166
BMC	14.44.030	Passenger Load Zone (white curb)	\$57	\$87	\$137
BMC	14.44.030	FD Passgr Load Zone (white curb}	\$86	\$116	\$166
BMC	14.44.040	No Stopping Bicycle Zone	\$55	\$85	\$135
BMC	14.44.040	FD No Stopping Bicycle Zone	\$83	\$113	\$163
BMC	14.44.050	Special Passenger Load Zone only	\$57	\$87	\$137
BMC	14.44.060	Parking in Coach (bus) Zone	\$64	\$94	\$144
BMC	14.44.060	FD Parking in Coach (bus} Zone	\$96	\$126	\$176
BMC	14.44.070	Unauthorized Use of Funeral Zone	\$51	\$81	\$131
BMC	14.44.080	Taxicab Parking Only	\$51	\$81	\$131
BMC	14.44.080	Unauthorized Taxicab Stand Pkg	\$51	\$81	\$131
BMC	14.46.040 B	Non-Electric Vehicle Parked in EV Space	\$49	\$79	\$129
BMC	14.46.050 B	Electric Vehicle Exceeding EV Space Time Limit	\$43	\$73	\$123
BMC	14.46.050 C	Electric Vehicle Not Actively Charging in EV Space	\$43	\$73	\$123
BMC	14.52.050 A	Meter Street: Expired Meter	\$43	\$73	\$123
BMC	14.52.050 A	FD Meter Street: Expired Meter	\$65	\$95	\$145
BMC	14.52.050 B	Pay & Display Station Expired Time	\$43	\$73	\$123
BMC	14.52.050 B	FD Pay & Display Sta Expired Time	\$65	\$95	\$145
BMC	14.52.050 C	Pay by Plate Station Expired Time	\$43	\$73	\$123
BMC	14.52.050 C	FD Pay by Plate Station Expired Time	\$65	\$95	\$145
BMC	14.52.060 A	Meter St: Extending Meter Time	\$43	\$73	\$123
BMC	14.52.060 A	FD Meter St: Extending Meter Time	\$65	\$95	\$145

<b>Code</b>	<b>Section</b>	<b>Violation Description</b> (For citations issued to a vehicle) FD = Football Game Days 9 a.m. to 11 p.m. FD fines = 50% higher on most violations & 100% higher for violations in RPP Zones A, B, D	<b>Fine Amount</b>	<b>On Day 28 +\$30</b>	<b>On Day 47 +\$50</b>
BMC	14.52.060 B	Pay & Display Station Extend Time	\$43	\$73	\$123
BMC	14.52.060 B	FD Pay & Display Sta Extend Time	\$65	\$95	\$145
BMC	14.52.060 C	Pay by Plate Station Extend Time	\$43	\$73	\$123
BMC	14.52.060 C	FD Pay by Plate Sta Extend Time	\$65	\$95	\$145
BMC	14.52.063	P&D Dispensing Mach Tkt Not Displayed	\$43	\$73	\$123
BMC	14.52.063	FD P&D Dispens Mach Tkt Not Displayed	\$65	\$95	\$145
BMC	14.52.066	Improper Display of P&D Disp Mach Tkt	\$43	\$73	\$123
BMC	14.52.066	FD Improper Display of P&D Disp Mach Tkt	\$65	\$95	\$145
CVC	4000	No Evidence Current Registration	\$50	\$80	\$130
CVC	4000	Expired Registration	\$50	\$80	\$130
CVC	4461 B	Improper Lending of DP Placard or Plate	\$550	\$580	\$630
CVC	4461 C	Improper Display of DP Placard or Plate	\$550	\$580	\$630
CVC	4461 D	Improper Use of DP Placard or Plate	\$550	\$580	\$630
CVC	4463 C	Use of Forged, Counterfeit, or False DP Placard or Plate	\$550	\$580	\$630
CVC	5200	Missing License Plates	\$25	\$55	\$105
CVC	5201	Lic Plates Improperly Positioned	\$25	\$55	\$105
CVC	5202	Hanging/Detached License Plate	\$25	\$55	\$105
CVC	5204 A	Expired Tags (read back)	\$25	\$55	\$105
CVC	5204 A	Missing Tags	\$25	\$55	\$105
CVC	21113 A	Parking on Public Grounds	\$54	\$84	\$134
CVC	21211 B	Vehicle Blocking Bicycle Lane	\$54	\$84	\$134
CVC	21718	Parking on Freeway	\$54	\$84	\$134
CVC	22500 A	Parking in an Intersection	\$60	\$90	\$140
CVC	22500 A	FD Parking in an Intersection	\$86	\$116	\$166
CVC	22500 B	Parking in Crosswalk	\$60	\$90	\$140
CVC	22500 B	FD Parking in Crosswalk	\$90	\$120	\$170
CVC	22500 C	Parking in Safety Zone	\$60	\$90	\$140
CVC	22500 C	FD Parking in Safety Zone	\$90	\$120	\$170
CVC	22500 D	Parking within 15' of Fire Station	\$60	\$90	\$140
CVC	22500 D	FD Parking within 15' of Fire Station	\$90	\$120	\$170
CVC	22500 E	Parking in Driveway	\$60	\$90	\$140
CVC	22500 E	FD Parking in Driveway	\$90	\$120	\$170
CVC	22500 F	Parking On/Across Sidewalk	\$60	\$90	\$140
CVC	22500 F	FD Parking On/Across Sidewalk	\$90	\$120	\$170
CVC	22500 G	Parking Construction No Permit	\$60	\$90	\$140
CVC	22500 G	FD Parking Construction No Permit	\$90	\$120	\$170
CVC	22500 H	Double-Parked	\$60	\$90	\$140
CVC	22500 H	FD Double-Parked	\$90	\$120	\$170
CVC	22500 I	Parking/Stopping in Coach Zone	\$263	\$293	\$343
CVC	22500 I	FD Parking/Stopping in Coach Zone	\$263	\$293	\$343

<b>Code</b>	<b>Section</b>	<b>Violation Description</b> (For citations issued to a vehicle) FD = Football Game Days 9 a.m. to 11 p.m. FD fines = 50% higher on most violations & 100% higher for violations in RPP Zones A, B, D	<b>Fine Amount</b>	<b>On Day 28 +\$30</b>	<b>On Day 47 +\$50</b>
CVC	22500 J	Parking in Tunnel	\$54	\$84	\$134
CVC	22500 K	Parking on Bridge	\$54	\$84	\$134
CVC	22500 L	Blocking Disabled Ramp	\$288	\$318	\$368
CVC	22502 A	Parking Over 18" from Curb 2-Way St	\$69	\$99	\$149
CVC	22502 A	FD Parking Over 18" from Curb 2-Way St	\$104	\$134	\$184
CVC	22503 E	Parking Over 10" from Curb 1-Way St	\$58	\$88	\$138
CVC	22507.8 A	Parking in Disabled Zone	\$317	\$347	\$397
CVC	22507.8 B	Obstructing Access Disabled Zone	\$317	\$347	\$397
CVC	22507.8 B	FD Obstructing Access Disabled Zone	\$317	\$347	\$397
CVC	22514 a	Parking within 15' of Fire Hydrant	\$78	\$108	\$158
CVC	22514 a	FD Parking within 15' of Fire Hydrant	\$117	\$147	\$197
CVC	22521	Parking within 7.5' of Railroad Tracks	\$54	\$84	\$134
CVC	22522	Parking within 3' of Wheelchair Ramp	\$317	\$347	\$397
CVC	22522	FD Parking within 3' of Wheelchair Ramp	\$317	\$347	\$397
CVC	22523 a	Abandon Vehicle on Highway	\$168	\$198	\$248
CVC	22523 b	Abandon Vehicle on Pub/Prvt Prop	\$168	\$198	\$248

Note: In addition to citation placed on vehicle, "Notice of Violation" is mailed to registered owner seven (7) days after citation and indicated when the fine penalty increases will occur: On Day 28 after citation issuance, the fine increases by \$30. If payment is not received within 45 days after issuance, on Day 47, the fine increases by an additional \$50.

#### Exhibit B: New Parking Violations

<b>Code</b>	<b>Section</b>	<b>Violation Description</b> (For citations issued to a vehicle) FD = Football Game Days 9 a.m. to 11 p.m. FD fines = 50% higher on most violations & 100% higher for violations in RPP Zones A, B, D	<b>Fine Amount</b>	<b>On Day 28 +\$30</b>	<b>On Day 47 +\$50</b>
BMC	14.24.230	No Parking/Loading in Transit-Only Lane	\$263	\$293	\$343
BMC	14.24.230	FD No Parking/Loading in Transit-Only Lane	\$263	\$293	\$343
BMC	14.52.050 C	Pay by Plate Station Expired Time	\$43	\$73	\$123
BMC	14.52.050 C	FD Pay by Plate Station Expired Time	\$65	\$95	\$145
BMC	14.52.060 C	Pay by Plate Station Extend Time	\$43	\$73	\$123
BMC	14.52.060 C	FD Pay by Plate Sta Extend Time	\$65	\$95	\$145

## Attachment 3

# goBerkeley SmartSpace Pilot Program – Implementation & Key Findings

On June 28, 2022, Council approved a package of parking management strategies that would be evaluated for their effectiveness in reducing the “two-hour shuffle” and associated greenhouse gas emissions under the pilot program. The two-hour shuffle occurs when those without permits re-park their vehicles every two hours to avoid being cited for parking longer than posted time limits.

Staff made a few adjustments to the strategies during the implementation phase in fall and winter 2022. These changes are summarized below:

<b>Pilot Area</b>	<b>June 28, 2022 Council Approval</b>	<b>SmartSpace Pilot Implementation</b>	<b>Changes</b>
<b>Elmwood</b>	Sell up to 220 employee parking permits for in adjacent RPP Areas A, D, and L	Sell up to 120 employee parking permits for specific block locations in RPP Areas A, B, D, and L.	Permits assigned to specific block locations like Merchant Permits  Occupancy analysis identified opportunity to allocate permits in RPP Area B  Reduction in permits issuance maximum from 220 to 120
<b>Southside</b>	Implement paid parking for visitors in parts of RPP Area I  Encourage employee parking in Telegraph Channing Garage	Implement paid parking for visitors in parts of RPP Area I	Limited staff capacity prevented efforts to encourage employee parking in garage
<b>Both areas</b>	Facilitate a transit pass program for employees of local businesses.	Coordinate with Elmwood merchants to establish an AC Transit EasyPass program	Limited staff capacity prevented efforts to facilitate Telegraph transit pass program

## Pilot Implementation

Following Council approval, staff implemented the pilot programs in phases during fall and winter 2022.

### **Elmwood Employee Parking Permits**

Staff refined the pilot employee permit program after further analysis and discussion with the Elmwood Merchants Association. To reduce potential impacts on residents and visitors, permits would be assigned to specific blocks, like Merchant Permits. In October and November 2022 staff conducted a thorough analysis of parking occupancy and the location of Fiscal Year 2023 annual residential permits to identify where new permits could be allocated without negatively impacting resident parking expectations.

Second, the maximum number of permits was reduced from 220 to 120 given the change to assigned blocks. Staff developed an application process for employee parking permits modeled after the Neighborhood Serving Community Facility program. Merchants applying for employee permits were assigned either the number of permits requested, or no more than 60% of their full-time equivalent staff, whichever was lower. Merchants with 10+ employees and thereby subject to the Commute Benefit ordinance<sup>1</sup> could only purchase permits if they demonstrated current provision of or future intent to provide employee commute benefits. Once approved, local businesses were assigned permits by proximity to their business on a first-come, first-serve basis.

In all, 51 transferable dashboard permits for specific blocks in RPP Areas A, B, D, or L were purchased by a total of 15 businesses. Permits were valid from January 1 to July 31, 2023 and cost \$108 each, prorated for seven months from the \$185 Merchant Permit annual fee.

### **Southside Visitor Paid Parking**

The Southside visitor paid parking pilot program launched on October 17, 2022. Payment was accepted via new license plate entry pay stations and ParkMobile zone #19800. Prices for visitors without RPP Area I permits were initially set at \$2.00 per hour, up to eight (8) hours, from Monday to Friday, 8 a.m. to 7 p.m. All other parking restrictions, including street sweeping and football game day restrictions, are still applicable.

In advance of the changes, staff posted flyers in the area and sent letters to all adjacent addresses with information about the upcoming pay station installation and pilot program. Staff also created windshield flyers to alert parkers of the upcoming pilot.

#### *March 2023 Price Adjustment*

Staff collected data in February 2023 to determine whether the new visitor pricing had improved parking availability. Staff developed a special occupancy calculation to

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<sup>1</sup> Berkeley Municipal Code, Chapter 9.88 Commuter Benefit Program, <https://berkeley.municipal.codes/BMC/9.88>



account for the presence of permitted vehicles, which are able to park without paying hourly and would skew a standard occupancy calculation.<sup>2</sup> At the 3pm peak hour, nearly all block faces were still above the optimum 65-85% rate (1-2 open spaces).<sup>3</sup> After posting flyers on pay stations and driver windshields, prices were raised to \$2.50 per hour on Monday, March 6, 2023 in accordance with goBerkeley Program guidelines. Subsequent analysis in April 2023 found that while parking occupancy rates remained high after this rate adjustment, the proportion of paid parking transactions for the full eight hours dropped in half.

**Transit Passes & Telegraph Channing Garage Promotion**

The AC Transit EasyPass Program allows businesses to offer discounted transit passes as a benefit of employment, whether or not an employee uses transit.<sup>4</sup> In fall 2022, staff worked with AC Transit and Elmwood merchants to set up an EasyPass Program. Ultimately, not enough Elmwood merchants were interested and a program was not established. Efforts to establish an EasyPass Program with the Telegraph Business Improvement District (and promote employee parking in the Telegraph Channing Garage) were postponed in early 2023 due to staff capacity shortages.





Evaluation & Key Findings

The City collected data before and after the pilots launched to test whether the strategies achieved project goals.

Key Findings

Some key findings from the City’s data analysis evaluation follow below.

**Goal: Reduce occurrences of and greenhouse gas emissions from the “two-hour shuffle”**

Metric	Elmwood	Southside
Number of vehicles shuffling <sup>5</sup>	 61 → 33 <b>-45%</b>	 43 → 29 <b>-33%</b>
Vehicle Miles Traveled (VMT) and Greenhouse Gas (GHG) emissions <sup>6</sup>	 10.3 → 6.8 mi/day (-3.5 mi/day) 3.4 → 2.2 kg CO2/day (-1.2 kg CO2/day) <b>-34%</b>	 8.9 → 5.8 mi/day (-3.1 mi/day) 2.9 → 1.9 kg CO2/day (-1.0 kg CO2/day) <b>-35%</b>

<sup>2</sup> The equation used is: Effective Occupancy = (Total number of vehicles – permitted vehicles) / (Total number of legal spaces – permitted vehicles).

<sup>3</sup> A block face is defined as one side of one street, e.g., the north side of Center Street between MLK Jr. Way and Milvia Street.





<sup>4</sup> AC Transit EasyPass Program, <https://www.actransit.org/easypass>

<sup>5</sup> Count of non-permitted vehicles observed in two or more locations in Elmwood study area on Tue 9/20/22 and Thu 3/16/23 and in Southside on Wed 10/12/22 and Wed 2/8/23.

<sup>6</sup> “Shuffling” VMT derived from measuring minimum legal driving distance between consecutive locations. GHG emissions factors from Calif. Air Resources Board EMFAC2021 model.

- The number of vehicles observed doing the “two-hour shuffle” dropped by nearly one-half (from 61 to 33) in the Elmwood and by one-third (from 43 to 29) in the Southside on an average weekday. These reductions may in part reflect employees who were assigned parking permits in the Elmwood, and/or regular visitors to the Southside paying to park for up to eight hours in the pilot zone.
- CO2 emissions from shuffling dropped by approximately one-third in each area. Assuming most shufflers in the Elmwood were local employees and in the Southside were visitors to UC Berkeley, the estimated annual CO2 reduction from fewer observed shuffling vehicles is -286 kg in the Elmwood and -153 kg in the Southside.<sup>7</sup>

**Goal: Increase parking availability in residential areas**

Metric	Elmwood	Southside
Block faces with optimum 65-85% occupancy (1-2 open spaces) at peak hour <sup>8</sup>	 27% (2021) 38% (2023)	 0 (Oct '22) 1 (Feb '23) 0 (Apr '23)
How often parking search does NOT require circling for a space <sup>9</sup>	 No circling (2021) No circling (2023)	 80% of runs (2021) 88% of runs (2023)
Parking availability on unpaid RPP streets within one block of paid pilot (“spillover” area) <sup>10</sup>	N/A	Slightly more block faces decreased in occupancy than increased between Oct 2022 and Feb 2023

- Parking remained consistently full in the Southside pilot area, even after prices went into effect. Excluding permit holders, the number of block faces at the target goBerkeley occupancy rate of 65-85% hovered between zero and one, with most

<sup>7</sup> The pilot led to a measurable reduction in shuffling-related CO2 emissions on an average weekday of between -1.0 and -1.2 kg CO2/day from 14 and 28 vehicles in the Southside and Elmwood study areas, respectively. For context, the daily per capita emissions from surface transportation in Alameda County is 8.9 kg CO2 (per MTC, Vital Signs database <https://vitalsigns.mtc.ca.gov>). Assuming that most shufflers in the Elmwood are local employees working five days a week, and most of those observed in the Southside are students or visitors to UC Berkeley during the fall and spring semesters, the annual GHG reduction in each area is -286 kg and -153 kg, respectively.

<sup>8</sup> Elmwood parking occupancy measures all vehicles throughout pilot area. Southside shows “effective occupancy” in paid parking blocks, i.e., excluding vehicles with annual permits. The equation used is: Effective Occupancy = (Total number of vehicles – permitted vehicles) / (Total number of legal spaces – permitted vehicles).

<sup>9</sup> “Parking search time” survey included drivers running two predetermined routes per pilot area to simulate the experience of trying to find a parking space. Southside route included new paid blocks.

<sup>10</sup> Comparing total parking occupancy from Weds 10/12/23 (before) and Weds 2/8/23 (after).

blocks exceeding the target rate. Further price adjustments may be needed to achieve optimum occupancy in this area.

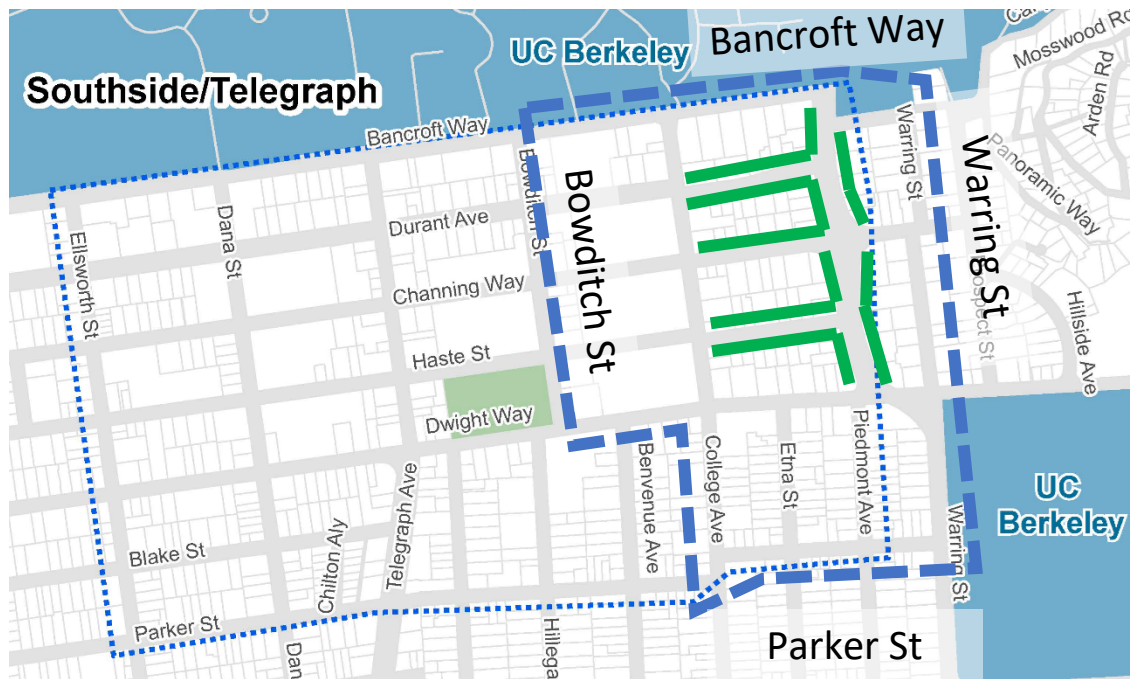
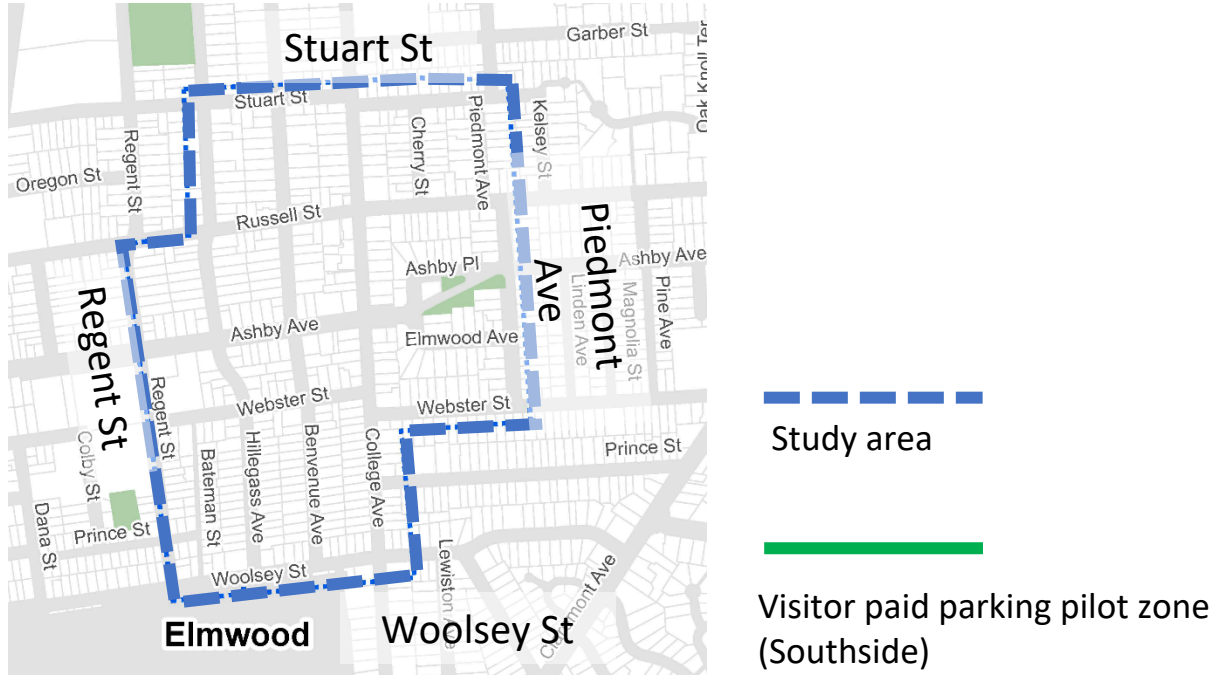
- Parking availability increased in the Elmwood pilot area between 2021 and 2023 at the weekday peak hour, though it is not clear to what extent the new parking permits may have played a role.
- Staff also modeled the behavior of a visitor searching for parking in each pilot area via the “Parking Search Time” survey. Surveyors followed two established routes in each pilot area, noting how many times they had to circle for a space. In the Elmwood, no circling was required on either route before and after the pilot. On the Southside route in the paid parking area, the need to circle for a space decreased between 2021 and 2023.
- Total parking occupancy in the Southside “spillover” areas—i.e., streets with unpaid RPP two-hour limits within one block of the paid parking pilot—varied depending on the block and time period after the pilot was implemented. Generally, occupancy fell on slightly more blocks than it increased between October 2022 and February 2023.

#### Two-hour shuffle analysis methodology

- Parking Enforcement Officer (PEO) runs a specified route using license plate readers (LPRs), four (4) times per day, before and after pilot strategies were implemented
- LPR vendor exports metadata (i.e., license plate numbers, GPS coordinates of plate read, nearest address, which camera captured the information, date/time of plate read) from data collection runs, which are compared with list of Fiscal Year (FY) 2023 annual parking permits – license plate based as well
- Staff review filtered list of presumed visitors to identify which unique plates were observed at multiple locations within four (4) hours within each study area, assumed to be vehicles shuffling for parking
- These “shuffles” were mapped in GIS and quality checked to identify likeliest candidates, accounting for GPS accuracy of LPR units (12-30 feet), whether vehicles were observed in a legal parking space, etc.
- Staff measured the shortest legal driving distance between each set of points to calculate vehicle miles traveled (VMT)
- Staff multiplied total VMT by California Air Resources Board (CARB)’s Emissions Factor (EMFAC) model output for Light Duty Autos going 25 mph:
  - Alameda County specific data, accounts for multiple vehicle model years and proportion of electric vehicles
  - GHG emissions factor: 326.3 g CO<sub>2</sub> / mile

### Study Areas

Data were collected in discrete study areas, within 2-3 blocks of the Elmwood commercial district and within one block of the new visitor paid parking in the Southside, each area approximately 0.12-0.13 square miles in size. See below:



Parking Search Time Survey Route Map

