




Office of the City Manager

INFORMATION CALENDAR

March 5, 2013

To: Honorable Mayor and Members of the City Council  
From:  Christine Daniel, City Manager  
Submitted by: Andrew Clough, Director, Public Works  
Subject: Berkeley Transportation Action Plan: Update on Parking and Transportation Demand Activities

SUMMARY

The Berkeley Transportation Action Plan (B-TAP) is a 3-year pilot program, from 6/2012 to 7/2015, aimed at reducing congestion and improving parking conditions in Downtown Berkeley, Telegraph/Southside and the Elmwood by providing more travel and parking choices to residents, businesses and visitors in those areas. Public Works Transportation staff presented a B-TAP status report to Council in [May 2012](#)<sup>1</sup>. This report updates progress since that time on the Parking and Transportation Demand Management (PTDM) elements of B-TAP.

B-TAP is a partnership between the City of Berkeley, BART, AC Transit, UC Berkeley, City CarShare, and TransForm. B-TAP is funded by grants administered by the U.S. Department of Transportation, the Metropolitan Transportation Commission (MTC), Caltrans, and the Bay Area Air Quality Management District (BAAQMD), plus local matching funds.

Some key advances since May 2012 include:

1. **IPS Parking Meter Installation.** The City has installed 1,000 IPS credit- and debit-card enabled “smart” meters, which are providing real-time information on parking usage.
2. **Residential TDM Outreach Effort.** TransForm completed travel coaching and free transit pass distribution, which resulted in an 11% decrease in Single Occupant Vehicle usage by participants (see Attachment 2).
3. **Public Outreach.** Staff has met with members of B-TAP’s Technical Advisory and Community Advisory Groups, and drafted plans for an employer outreach program.

CURRENT SITUATION AND ITS EFFECTS

The Elmwood, Telegraph/Southside and Downtown Berkeley are three of the major commercial areas that make Berkeley an attractive place to live, work, visit, shop, and

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<sup>1</sup> May 1, 2012 B-TAP report: [www.cityofberkeley.info/uploadedFiles/Clerk/Level\\_3\\_-\\_City\\_Council/2012/05May/2012-05-01\\_Item\\_45\\_Status\\_Report\\_BTAP.pdf](http://www.cityofberkeley.info/uploadedFiles/Clerk/Level_3_-_City_Council/2012/05May/2012-05-01_Item_45_Status_Report_BTAP.pdf)

dine. However, businesses, residents and visitors often report that parking is difficult to find, and doesn't adequately serve their needs or offer convenient payment methods.

B-TAP is a means by which the City, in partnership with the other agencies, can effectively advance objectives of the General Plan Transportation Policies; improve transit infrastructure and access; reduce emissions and vehicle miles traveled; improve parking availability, convenience and driver satisfaction; and enhance parking enforcement using available technology. Following are some recent accomplishments, and milestones for further action in the coming year (see Attachment 1 for details).

### **Progress since May 2012**

1. Installed 1,000 new IPS "smart" meters. Net on-street parking revenue increased by an average of 21% during the September – November 2012 period in the areas where they were installed.
2. Prepared a Request for Proposals (RFP) for a consultant to provide manual parking data collection and assist with identifying tools for automated data collection and enhanced parking enforcement that support demand-based parking management.
3. Completed the TravelChoice residential TDM outreach effort (Attachment 2) that resulted in an approximately 11% decrease in the use of Single Occupant Vehicles (SOV) by program participants.
4. Hired project-based Principal Planner to lead B-TAP project, with expertise as former Project Manager for New York City's Variable Price Parking Pilot Program.
5. Submitted draft Concept of Operations to U.S. FHWA, which is a required project planning document that specifies methods, equipment, risks and critical path planning of the parking and TDM pilot.
6. Met with members of the B-TAP Technical Advisory Group (TAG) and Community Advisory Group (CAG), including the Downtown Berkeley Association, Telegraph Business Improvement District and Elmwood Merchants Association, and developed the pilot's public involvement and public relations framework.
7. Completed an inventory of parking regulations and the supply of on-street and off-street spaces.
8. Collected preliminary data on existing parking conditions that will be used to inform proposed changes to parking pricing and time limits that were described in the May 2012 Council Report.

### **Upcoming 2013 – 2014 Milestones**

Community outreach and preliminary data collection activities are on-going. A projected timeline for the Parking and TDM elements of the B-TAP pilot is provided in Attachment 3.

### **February 2013: Request for Proposal for Manual Data Collection Services**

The City plans to release a Request for Proposals (RFP) for a consultant to perform manual parking data collection and analysis. The manual data collection will provide a

baseline of on-street and off-street parking conditions, and enable the City to accurately assess the effects of parking rate and time limit changes.

### **March 2013: Request for Proposal for Automated Data Collection Technology / Services and System Integration**

The City plans to release a Request for Proposals (RFP) for a consultant to assist with the identification of technologies (such as License Plate Recognition) that enhance enforcement and automate the collection of parking data.

The consultant will 1) identify cost-effective technology/services that automate data collection and analysis, 2) demonstrate the capacity for parking enforcement enhancement in metered and Residential Preferential Parking (RPP) areas, 3) meet all other requirements identified by the Police Department, Public Works and Information Technology and 4) procure and integrate the technology/services into existing City systems.

### **BACKGROUND**

Implementation of the B-TAP pilot program is supported by federal and regional funds. The B-TAP parking pilot runs from June 2012 through July 2015 and is aimed at reducing congestion and improving parking conditions in Berkeley's Downtown, Telegraph/Southside, and Elmwood business districts, by providing more travel and parking choices to residents, businesses and visitors of these areas. A Fact Sheet that provides an overview of the pilot and study areas is provided in Attachment 4. Choices include:

For people who have options other than driving:

- Provide information to residents and workers about alternatives to using a private vehicle, such as transit, car sharing, bicycle or walking.
- Distribute up to 1,000 free 1-year transit passes to encourage residents and workers to use transit.
- Improve the convenience and cost of carsharing by working with City CarShare to add more vehicles and pick-up/drop-off locations, as well as provide discounted memberships.

For those who prefer to drive, or have no practical alternatives:

- Improve the availability of on-street parking so that a space is more likely to be available where and when you want it, by adjusting the parking rate to meet demand.
- Match the time limits of parking to the needs of users, while preserving turnover and availability.
- Give drivers better information so they know where they have the best chances of finding an open parking space that has the parking rate and time limit that meets their needs.

The City of Berkeley and its partners will test the effectiveness of these choices on parking and travel conditions by collecting data, surveying residents, businesses and visitors, and working with the stakeholders in Downtown Berkeley, Telegraph/Southside and the Elmwood.

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Attachments:

- 1: Details on B-TAP Progress Update Items
2. Final Report Executive Summary of Travel Choice Residential Outreach Project
3. B-TAP: Projected Pilot Timeline
4. B-TAP Fact Sheet

## FURTHER DETAILS ON B-TAP PROJECTS

### **1. Installation of IPS Smart Meters**

In August 2012, approximately 1,000 IPS “smart” meters were installed as part of the program to replace single-space Duncan meters in the City. Under the current contract, the City can install 1,734 IPS meters. The new IPS meters provide these benefits:

- a. Payment options by credit/debit card.
- b. Alerts to maintenance and collection staff about full coin reservoirs and/or malfunctioning meters.
- c. Real-time data on meter transactions that allow City staff to monitor financial performance and parking demand.
- d. Ability to handle complex rate structures, such as those being considered in the B-TAP parking pilot, including peak rates, discount rates, progressive pricing, and adjusted parking rate and time limits by day of the week or time of day.

A preliminary analysis that compares revenues from September through November 2011 (pre-IPS install) and September through November 2012 (post-IPS install) shows a 21% increase in net revenues.

### **2. Preparation for Procurement of License Plate Recognition (LPR) Technology**

In preparing the Request for Proposals (RFP) for a consultant to perform manual data collection, and identify technology to perform both automated data collection and tools for enhanced parking enforcement, staff gathered feedback from current users of LPR units, including Berkeley Parking Enforcement (PEOs) and other cities, such as New York and Washington, D.C. Berkeley PEOs are already using LPR units from 2 different vendors.

Though no rigorous testing of LPR technology has been performed, anecdotal reports of its effectiveness have led staff to take a measured approach to procuring enforcement and data collection technology. Instead of a direct purchase, staff will release an RFP that requires vendors of technology such as LPR to demonstrate their ability to perform enforcement and data collection to standards set by the City. Some of these standards include the ability to:

- Accurately detect the presence of a parked vehicle regardless of weather or light conditions, the size of the vehicle or the type of parking (parallel, angled, 90 degrees)
- Differentiate between parked and moving vehicles
- Report its location in a format that will allow integration with data collection tools
- Easily switch between enforcement functions and data collection functions.

Staff will work with Berkeley Parking Enforcement and IT to develop the final list of standards and requirements for the RFP, perform testing and ultimately, to procure

these tools. This process may yield technologies other than LPR that satisfy the requirements.

### 3. **Residential Outreach to Promote Commute Alternatives**

Completed in July 2012, the non-profit agency, Transform, reached out to 5,500 transit-oriented households in a concentrated effort to get residents to switch from driving to carpooling, biking, walking or taking transit. The effort included going door-to-door and working with property managers to provide information about commuting alternatives. The program also offered 1,000 free 1-year AC Transit Passes to residents.

Some of the major findings from the outreach are:

- a. Use of single occupant vehicles for those who participated decreased by an average of 11%.
- b. Total vehicle trips of program participants decreased by 3%.
- c. Outreach about commute alternatives is most effective for residents who have just moved in and have not yet made their choices about travel.

See Attachment 2 for additional details.

### 4. **Project Manager Hire**

In September 2012, the City hired a project-based Principal Planner to lead the B-TAP project. The new staff person is a professional transportation engineer with expertise in implementation of parking programs and community-based planning, and was formerly the project manager of the variable price parking program in New York City, as well as the project lead for the deployment of new parking technologies.

### 5. **Concept of Operations**

The Concept of Operations is a technical planning document required by the Federal Highway Administration, which is one of the funders of the project. A draft Concept of Operations was submitted to FHWA staff in November 2012.

For the Concept of Operations, staff 1) identified the detailed goals of the parking and TDM pilot; 2) diagnosed the state of the current systems; 3) designed the system that will be tested in the pilot; and 4) created a timeline for project implementation.

Key goals and milestones of the Concept of Operations are:

#### **A. Parking**

1. Influence driver behavior through driver information and changes to parking rates and time limits; and
2. Test tools that will form the basis of a long-term parking management system for the City of Berkeley at the conclusion of the pilot.

Timeline: This effort began in October 2012 with the initial data collection work and surveys. This information will allow for the presentation of proposed parking pricing and time limit strategies to the public in spring 2013.

## **B. Transportation Demand Management (TDM)**

Decrease single occupant vehicle usage by providing incentives to use transit and carsharing programs by:

1. Providing information about commute alternatives and offering up to 1,000 free 1-year transit passes to residents and employees; and
2. Providing incentives to use car sharing programs by:
  - a. Increasing the number of City CarShare vehicles available to Berkeley residents.
  - b. Increasing the number of CarShare pick-up/drop-off locations to provide more convenience.
  - c. Providing employer discounts on City CarShare memberships.
  - d. Giving away free City CarShare memberships to members who are willing to discontinue use of their personal vehicle.

Timeline: This effort is planned for kick-off in spring 2013.

## **C. Public Education, Marketing and Public Involvement**

Effective communication with Berkeley residents, business owners and visitors will be integral to the success of the parking and TDM pilot. As such, PW staff and their consultants are developing an outreach plan to address:

1. **Information about parking demand**: Gather data on where drivers want to park and for how long. Intercept surveys will be performed in the three project districts and outside City garages to determine the reasons that people drove and their preferences for parking location and duration, as well as their reactions to parking rates and time limits.
2. **Information about other uses of the curb**: Gather data from business owners / institutions that may have needs other than parking, such as deliveries, transit or safety. In-depth interviews of business owners will be performed in the three districts to determine employee parking needs and behaviors, delivery patterns, and other information about their customer parking needs.
3. **Education and publicity about parking and TDM programs**: Programs that offer free or discounted transit passes and car share memberships won't be used if potential users don't know they exist. Publicity in the form of brochures, stickers, events and door-to-door outreach will ensure that as many as possible know about the incentives being offered. In addition, a parking pricing program must include notification that the change is coming, "on-the-street" assistance during the first few days of the change, and on-going customer service and response to questions and complaints.
4. **Information about parking availability, rates, and time limits for drivers**: Drivers make decisions about whether or not to drive based on 1) the likelihood of finding a parking space at their destination, and 2) the rate and time limit of parking. Before starting their trip, a driver will be able to view typical parking usage of on-street and off-street spaces and existing parking rates and time limits. Once the driver has arrived in the commercial area, simple and clear signs will tell that driver how long they can park and how much they will pay.

5. **Public Involvement:** Collect input from those who are affected the most. The pilot program will check in with the following groups at milestones, such as when the proposed strategies are developed, before the strategies are implemented, and when results of pilot activities become available:
- a. **The Technical Advisory Group (TAG)** will include agencies, institutions and departments with operating authority in and around the B-TAP project area, including the City of Berkeley's Public Works and Police Departments. The TAG will be responsible for assisting City staff in implementing the pilot.
  - b. **The Community Advisory Group (CAG)** will include community stakeholders in each of the three B-TAP project areas. CAG members will be tasked with collecting feedback from their constituents and disseminating information released by the pilot project team. CAG may also be asked to help collect data regarding the land uses and economic and parking demand patterns of their constituents. CAG plans to include the following groups:
    - Transportation Commission (Parking and TDM Subcommittee)
    - Elmwood Merchants Association
    - Telegraph Business Improvement District
    - Downtown Berkeley Association
    - University of California, Berkeley
    - Private Parking Operators
  - c. **Community Workshops** open to the general public will be held at major milestones to provide information about the pilot and receive feedback. These workshops will be conducted either in break-out style, with B-TAP team members distributed among groups of 8-10 attendees, or in Open House format with B-TAP team members operating "stations" on specific topics, and interacting with participants in small groups.

Workshop #1:

- Formally "kick-off" B-TAP with the community, with an opportunity to introduce members of the study team, TAG and CAG.
- Attempt to reach consensus on the over-arching goals of the pilot for each project area.
- Identify issues, building on the issue identification performed prior to the workshop by the TAG, CAG, and through the small group meetings.
- Present the results of initial parking occupancy surveys, merchant interviews, and visitor surveys.
- Gather feedback on the potential parking management strategies that may be deployed in each area.



Workshop #2:

- Present the results of baseline data collection (a more detailed data collection than the initial collection results presented in Workshop #1).
- Present the pilot strategies based on the data (including pricing, changes to time limits, changes to parking regulations, wayfinding).
- Present the timeline for implementation and evaluation.

Workshop #3:

- Present the results of pricing and time limit changes in each of the three areas, based on data collection.
- Gather feedback from the community on the effects of the pilot strategies.
- Present adjustments (if necessary) to the pilot strategies for implementation.

Workshop #4 (if necessary):

- Present the results of revised pilot strategies in each of the three areas, based on data collection (if necessary).
- Gather feedback from the community on the effects of the pilot strategies.
- Present parking policy and procedure recommendations to establish a long-term parking management framework for the City.

d. **Website and Fact Sheets** will be used to provide on-going communication with the public. The website will include information about the pilot, updates on pilot progress and any relevant documents.

- Six fact sheets will be distributed via e-mail and the website at major milestones to provide updates.
- The website will be updated at least monthly, and more frequently during certain periods, such as leading up to public workshops, during data collection, and before/during/after implementation.

## **D. Parking Inventory**

In October 2012, a detailed inventory of on-street and off-street facilities was performed in the B-TAP areas. Data collected included the number of spaces by block and facility, the type of parking (metered, residential, red curb, yellow curb), and time limits (1 hour, 90 minute, 2 hour).

The data collected is being stored in both database and GIS map format for graphical display. This data will provide the basis for parking occupancy calculations (number of parked vehicles/number of total parking spaces) that will determine which areas are over-subscribed and which have available spaces. The GIS map format will allow for graphical displays such as where different types of parking (e.g. 1-hour, 2-hour) are located, usage of each of the blocks and garages, and comparisons of data to track changes.

### **E. Diagnostic Parking Occupancy Survey**

In November 2012, a diagnostic parking occupancy survey was performed in the B-TAP area at metered blocks and adjacent residential blocks. This survey collected occupancy data for blocks in time bands (AM, Midday, PM, Evening) for two main reasons:

1. To provide a scan of conditions that will allow City staff to develop the tailored proposed pricing strategies for each of the areas; and
2. To provide the basis for the more focused and rigorous data collection effort necessary to accurately monitor the effectiveness of pricing and time limit changes.

Timeline: Results of the parking inventory and diagnostic parking inventory survey will be presented to the Technical Advisory Group, the Community Advisory Group, and the general public along with the proposed pricing and time limit changes in spring 2013.

## TravelChoice B-TAP

### Final Program Report – August 2012

#### Executive Summary

*TravelChoice New Residents* piloted a program that aimed to build on the successes of *TravelChoice* to ultimately connect with new households before they move in, effectively helping them to start new travel habits before they fall back on previous auto-oriented behaviors. Based on the results, future *TravelChoice* will focus specifically on educating and motivating residents at the time they are moving into their new homes in walkable communities near transit. In the end, *TravelChoice New Residents* looks to provide a permanent, developer-funded service in each new development in which it operates, providing transportation updates on an ongoing basis and conducting one-to-one outreach on an annual basis.

The *TravelChoice New Residents* program, an innovative pilot program to reduce driving and congestion while promoting healthy physical activity, was conducted in the Elmwood, Southside/Telegraph and Downtown neighborhoods of Berkeley from late 2011 through summer 2012. The program was sponsored by the Alameda County Transportation Commission (formerly ACTIA), the Bay Area Air Quality Management District's Transportation Fund for Clean Air (TFCA), and the City of Berkeley's Climate Protection program, B-TAP. It was coordinated by TransForm.

Through outreach to nearly 5,500 households, *TravelChoice* sought to reduce vehicle use and ultimately ownership. As a pilot program, *TravelChoice* provided data on the effectiveness of various transportation demand management strategies, including geographic and place-type information that can aid in ensuring that future developments built near transit maximize the benefits of their transit rich environment and capitalize on transportation services and mitigations that are provided as a part of the development.

Through this pilot program, *TravelChoice* provided existing residents in all three neighborhoods of Berkeley, encompassing 31 developments and surrounding houses, with information that increased their comprehension on how to connect with the multiple transportation options available to them in their neighborhood. The sites selected represented a variety of development types from dense, urban downtown living to more inner-suburban planned developments.

Before and after evaluation surveys were developed with the assistance of staff from Nelson/Nygaard and Eisen/Letunic. Analysis of the collected information show that the *TravelChoice* program likely achieved its goals of reducing single occupancy trips by 8-14%. Countywide, the surveys show that trips in which individuals surveyed were the driver decreased by 8.7% and that total vehicle trips were reduced by 3.1%.

As with past pilot projects, *TravelChoice* connects interested residents with information and incentives to add more walking, bicycle riding, public transit and carpooling into their daily routines. In working

## Attachment 2: Executive Summary of TDM Residential Outreach Effort Final Report

with housing developments, the New Residents program adjusted its previous outreach methodology to rely more heavily on electronic communication and partnering with development managers to assist with contacts. Both of these decisions, which significantly reduced the program staff costs as intended, had major impacts.

In relying on third party partners, the program was limited to the developments that were available to work in. Many of the developments that we contacted initially chose not to participate despite the fact that there was no cost, and very little effort required on the part of an individual property manager. Further, of the 31 properties that did participate, the level of property manager contribution and attentiveness to the program varied widely which had a significant impact.

Further, the decision to reduce personnel costs in our grant application by piloting a program that relied heavily on electronic communications like email were revealed to be overly optimistic. The federal CAN-SPAM law has been extremely effective in making the legitimate acquisition of people's emails difficult and very expensive. This early lesson forced the program to focus more heavily on working with property managers, and to resort to hiring canvassers as in past programs.

Outreach varied from site-to-site in order to conform to the limitations of each individual development, as well as to allow the program to look at the effectiveness of a variety of outreach methods. The results confirm the assumptions of the program that when working directly with a property manager who is engaged and enthusiastically involved in connecting residents with the program, the participation is appropriate for effective outreach and results in behavior change.

The long-term goal for TravelChoice is to use the information and data collected through the program to support efforts to create transit-oriented developments that reduce the requirement for excessive parking and provide comprehensive transportation demand management, traveler information and parking strategies, such as unbundling or shared parking.

The results support our conclusion that a property which builds a TravelChoice program into its early operating structure and embraces it as a true benefit to residents will see significant changes in the amount of auto-use generated by that development and that these benefits appear to hold true for urban developments and suburban ones. In the end, developers could see a reduction in the costs associated with building transit supportive developments through parking reductions, local communities would have another option to mitigate the traffic generated by these developments, and future residents would see a reduction in their transportation costs.

While this program is at an end at Transform, the City of Berkeley is currently in discussion with property managers about including TravelChoice (or a similar service) to new residents in its downtown properties with at least one new residential building looking to provide a TravelChoice program to all new residents when they begin renting in the fall of 2012.