

South Bay Cities Council of Governments

October 23, 2014

TO: SBCCOG Board of Directors

FROM: Steve Lantz, SBCCOG Transportation Consultant

RE: SBCCOG Transportation Update – October 2014

Adherence to Strategic Plan:

Goal A: Environment, Transportation and Economic Development. Facilitate, implement and/or educate members and others about environmental, transportation and economic development programs that benefit the South Bay.

FOLLOW THE MONEY...

TRANSIT / HIGHWAY

FEDERAL

Bi-partisan U.S. Senate Bill Would Improve Local Access to Federal Transportation Funds

Historically, nearly all federal transportation money goes to states rather than local governments. That means state DOTs get tens of billions to spend on state highways each year, while mayors and local agencies have to scrounge for money to improve their roads, transit, or add bike lanes. A bipartisan bill introduced in the U.S. Senate on September 18th could give local governments greater access to federal funding. The bill, known as the Innovation in Surface Transportation Act (S 2891), would allocate 10 percent of federal surface transportation funding (about \$5 billion per year) on a competitive basis to local governments, transit agencies, and regional planning agencies for local projects. The Senate bill has a companion in the House (HR 4726), which has been held up in committee.

STATE

Governor Signs Four Key Infrastructure Financing District (IFD) Bills

The most significant of the four newly-signed state IFD laws, SB 628, gives local governments much better ability to build and repair infrastructure by tapping into the tax-increment financing tools and other revenue streams they had under redevelopment. Although the new districts can be created without a vote, a 55 percent vote would be required for any such district to issue bonds.

The three other IFD bills signed by the governor are AB 229 (authorizes a city or county to form an IFD to finance projects on a former military base and dedicate any portion of its funds from the RDA Property Tax Trust Fund to the district. Also allows district to finance projects in former RDA areas.); AB 2292 allows local communities to use IFDs to create community-wide broadband projects; and SB 614 allows a local agency to use tax increment financing during the

next ten years in a newly formed or reorganized IFD to fund infrastructure improvements in disadvantaged unincorporated communities.

New State Law Helps Agencies To Locally Fund Bike Paths And Trails

SB 1183 enables local agencies, including cities and park districts, to place proposals on their local ballot that, with a two-thirds vote from local residents, would impose a motor vehicle registration surcharge of up to \$5 in those districts, with the proceeds going to developing and maintaining bikeway networks.

State Legislature Seeks Pilot Study of VMT Tax For Highway Projects

The California Legislature approved a bill (SB 1077) to study changes in how the state raises revenue for transportation programs. The bill would set up a task force to develop a voluntary test program to change the source of funding used from an excise tax to a vehicle-miles-traveled tax. As of September 30th, SB 1077 awaits Gov. Jerry Brown's approval or veto. The states of Oregon and Washington are testing similar programs.

TRANSPORTATION INNOVATION: STARTS AND STOPS ...

TRANSIT / RIDESHARING / CARSHARING

L. A. City Reviewing Taxi Regulations To Improve Competition With Carsharing Services

Los Angeles is the first major city to pursue easing regulations for cab operations. The L. A. City Taxi Commission is exploring potential updates of the city's taxi policies, including those governing availability of cabs and rates that can be charged to improve the competitiveness of taxis with Lyft, Uber and Sidecar which are regulated by the California Public Utilities Commission and are not subject to Los Angeles City rules. Major policy changes, including ones involving fares, would have to be approved by the City Council

Carshare customers summon ride-sharing services using smartphone apps, and drivers transport passengers in personal vehicles. The services are often marketed as a cheaper, more casual alternative to taxis and have rapidly gained popularity in L.A. Uber, Lyft and Sidecar use flexible pricing models, called "surge pricing" or "prime time," that increase during peak periods, such as nights and weekends. In contrast, Los Angeles' regulated cabs are required to charge fixed rates: \$2.85 when a ride begins, and \$2.70 for each subsequent mile. The City also has historically capped the number of cabs in the city at 2,300, split among nine franchised and licensed companies.

Metro Tip Toeing into Smart Phone Fare Payment

In the near future, smart phones with applications like Apple's new Apple Pay debit card feature could replace Metro's TAP card saving the agency millions of dollars in annual TAP Card distribution and management costs.

Issuers of plastic credit or debit cards like Visa and MasterCard (and Metro's TAP card) have smart chip technology on their cards that allows fare payment transactions. But there have been few applications in the U.S. retail markets outside of transit because of the ubiquity of the magnetic stripe system and the cost of the smart cards.

The goal of Apple and other early innovators is clear: soon, anyone with a smartphone (or an Apple Watch) can theoretically use those devices for all electronic payment transactions, including payments at the turnstile and farebox. Account reloading could be handled with a cell phone call rather than standing in line at the ticket vending machine.

This advancement has the potential to revolutionize our concept of the fare card and could also change the way transit agencies do business. For transit agencies, turnstiles and fare boxes could charge a rider's credit or debit card directly rather than using a TAP fare card. It also would allow riders to block use of their card if their phone is lost or stolen, and have the value remaining on their pass refunded.

L.A. Metro is proceeding cautiously into the opportunity. As a first step, the agency will enable the loading of value onto the TAP card via a smartphone application. However, the advent of virtual fare cards does not mean that the TAP Cards will disappear anytime soon. Not all riders, of course, want or can afford to purchase a smartphone or a \$350 Apple watch. Transit systems must still provide the option of paying cash for a pass or ticket. In addition, the transit agencies would lose the available, yet to be used "float" of "stored value" on their TAP debit cards.

3-Bike Racks On Front Of Buses Now Legal In California

California transit agencies are now allowed greater use of bus-mounted bike racks that hold three bicycles. Governor Jerry Brown signed A.B. 2707 Tuesday, September 9th to allow 40-foot-long buses to be equipped with folding bike racks that can carry up to three bikes.

Prior law restricted the length of vehicles equipped with bike racks on California roads to a maximum length of 40 feet. Until now, exceptions to the 40-foot rule have allowed three-bike racks on buses up to 60 feet long, but only after approval from the transit operator's Route Review Committee that must include representatives of the transit agency, the driver's union, and an engineer.

HIGHWAY

New California Law Requires Giving Cyclists 3-foot Distance When Passing

A new California law, the Three Feet for Safety Act that became effective on September 16th, requires drivers to leave space when passing a bicyclist or slow down to and wait for a chance to pass safely. Two provisions of the law provide the following specific admonitions from the California Department of Motor Vehicles:

"A driver of a motor vehicle shall not overtake or pass a bicycle proceeding in the same direction on a highway at a distance of less than 3 feet between any part of the motor vehicle and any part of the bicycle or its operator."

"If the driver of a motor vehicle is unable to comply ... due to traffic or roadway conditions, the driver shall slow to a speed that is reasonable and prudent, and may pass only when doing so would not endanger the safety of the operator of the bicycle."

Bicycle advocates are recommending that motorists use as a measure of 3 feet the equivalent width of their open car door as an approximate passing separation distance. They also

recommend motorists change lanes to pass where possible, and that they slow to no more than 5-10 miles faster than the bicycle to safely pass.

The new law does not require a bicyclist to leave three feet when passing a vehicle. There's a \$35 fine for violating the law and a \$220 fine if there is a collision and the bicyclist gets hurt. With court fees, fines are about \$230 and \$960. About two dozen states have a similar three-foot law.

TRANSFORMATIVE TRANSPORTATION PLANNING ...

New Bike Lane Design Law Allows Divergence from Caltrans Design Standards

Under existing law, bike lanes must fit precise standards set by Caltrans. AB 1193 allows cities to plan such lanes that may not meet the state's standards, as long as the designs meet the guidelines set by a national association of public transportation officials. The new law also allows local governments to build cycle tracks (bike lanes separated from the road by posts or other physical barriers.)

Street planners already widely recognize that rather than simply painting a line or bike lane on the road, physically separating bike lanes from car traffic provides a safer biking experience and increases the appeal of two-wheeled transportation. So far, in the U.S., this has taken the form of building protected bike lanes, which usually involves using bollards or barriers or placing the lane between parked cars and the curb.

But these methods aren't always ideal. Some people consider barriers and bollards ugly and a maintenance hassle, and protecting lanes behind parked cars can make it harder for drivers who are turning right to see a cyclist. They can also confuse pedestrians and can be harder to drain water from.

In Europe, raised bike lanes are elevated a few inches above the street level but below the sidewalk level. San Francisco will be getting its first raised bikeway next year. It will only be one-block long--part of a "showcase" project in the Mission neighborhood--but the city is planning to build more of them as part of other upcoming street improvements projects that will take place in the next few years. Chicago has also been building its first raised bikeway this summer. Smaller cities including several in Oregon have already implemented the infrastructure.

Caltrans Modernizes its Mission, Vision and Goals

Caltrans on September 15th announced a new department-wide mission, vision and goals as part of its ongoing efforts to modernize operations and improve performance and accountability across California. In coordination with creation the California State Transportation Agency (CalSTA), and on the heels of an external review that called for bold reforms and a more modern department, Caltrans replaced its old mission ("improve mobility") with a new mission that better captures state efforts to clean up the environment, improve quality of life and strengthen California's economy: "Provide a safe, sustainable, integrated and efficient transportation system to enhance California's economy and livability."

Caltrans also updated its vision statement and laid out five new goals covering safety and health, stewardship and efficiency, sustainability, livability and economy; system performance, and organizational excellence.

What Share of Commuters Bike to Work In L. A.?

In case you are asked how significant bicycle commuting is in L. A., Jeff Jacobberger, the L.A. City Bicycle Advisory Committee chair, crunched the U.S. census data in the 2013 American Community Survey to determine that, in the city of Los Angeles, the commuting mode share is as follows:

Driving Alone: 67.1 percent
Riding Transit: 10.8 percent
Carpooling: 9.9 percent
Work at Home: 5.4 percent
Walking: 3.6 percent
Bicycling: 1.2 percent
Other: 1.9 percent (includes taxi, motorcycle, other)

An interesting effect of the recent recession may be that more of those surveyed work from home than walk and bicycle combined. However, it is also interesting to note that the bicycling mode has increased 33% increase since 2010; and doubled since 2000. The highest levels of cycling are the area around USC (which has a bicycling mode share comparable to Santa Monica) and parts of South L.A. Lower ridership occurs in West L.A./Westwood, which has an overall bike mode share equal to Silver Lake, Echo Park, and Westlake.

Does Bike Sharing Reduce CO²?

There are more than 25 bike share programs in major urban areas across the country. Although experts have calculated that each mile someone rides on a bike-share bike instead of driving a car means about 1 pound of carbon dioxide is kept out of the atmosphere, there is no consistent data available on how many people have traded their car for a bike-share bike. Estimating how much CO² bike sharing keeps out of the atmosphere is complicated because every local bike-sharing program works differently and collects data differently said Susan Shaheen, co-director of the Transportation Sustainability Research Center at the University of California-Berkeley.

For example, nobody knows for sure how many people have decided to rent a bike-share bike instead of driving a car, there's no industry standard for how to measure the CO² emissions that have been avoided by people taking trips on one of those bikes, and many people using bike-share programs in denser cities are only avoiding public transit rather than avoiding driving a car, muting the CO₂ benefits of bike-share programs. Conversely, in less dense cities, bike sharing is used as a way to connect people to public transit, which would enhance the climate benefit.

A 2012 University of British Columbia study focusing on the climate benefits of bike sharing in Vancouver says numerous factors play into how effective a bike-share system is at reducing emissions. Those include the size of the area the program serves, regional weather, and helmet-wearing requirements. The University of British Columbia study concluded that the climate benefit of bike sharing in Vancouver — Canada's most densely populated city — was so small

that the system would be better marketed as a way for people to get more exercise than reduce CO2 emissions.

Help may be on the way since there is interest among bike-share program officials to start a trade association that would standardize how data is collected and how each bike-share system's climate and other benefits are estimated and reported.

In 20 Years, Will You Order An Autonomous Vehicle For Neighborhood Travel?

Future-minded L. A. Mayor Garcetti believes there's a possibility autonomous vehicles will take over within the next two decades and make car ownership an obsolete and archaic concept. Garcetti described his dream on September 29th at the CityLab 2014 summit in downtown L.A. His dream is a mix-up of on-demand car-sharing using driverless vehicles. The city is apparently already working with a team at UCLA to create a neighborhood for driverless vehicles.

Not So Fast: MIT Raises Reality Check For Self-Driving Cars

The California Department of Motor Vehicles on September 16th issued regulations governing how manufacturers can test autonomous vehicles on California roads. The regulations set rules for autonomous vehicle testing, insurance, registration and reporting by manufacturers. The regulations only address manufacturer testing requirements; they do not address rules for operation of autonomous vehicles by the public. Rules governing public operation of autonomous vehicles are currently being developed by DMV.

Despite Google's official optimism, an August 28th MIT Technology Review article puts the hype around the near-term reality of self-driving cars into perspective. The article describes some of the design challenges that must be solved before the car will be street ready. For instance, although Google's self-driving car can "see" moving objects like other cars in real time, only a pre-made map lets the car know about the presence of certain stationary objects, like traffic lights. So far, the vehicle in development knows nothing about parking structures and huge private lots, couldn't be taken out in snow or heavy rain, and would drive straight through a pothole. Pedestrians are detected simply as moving, column-shaped blurs of pixels—meaning that the car wouldn't be able to spot a police officer at the side of the road frantically waving for traffic to stop.

Intricate preparations must have been completed before the car can hit the street including mapping of the car's exact routes, including driveways; it's vastly more effort than what's needed for Google Maps. If a new stop light were installed, the car wouldn't know to obey it until the map database was updated. However the car would slow down or stop if its on-board sensors detected any traffic or obstacles ahead so the risk would be highest if the driverless car were the lead vehicle approaching a new red light. Maps have so far been prepared for only a few thousand miles of roadway, but achieving Google's vision will require maintaining a constantly updating map of the nation's millions of miles of roads and driveways.

Can / Should Cities Use Private Mobile Phone Apps For Planning?

Private, crowd-sourced mobile phone applications collect enormous amounts of real time data from their users on how transportation facilities in cities are responding to transportation demand. The companies are beginning to approach cities to create public private partnerships at

little or no cost to the public agencies. However, as enticing as this mega-data is, cities are understandably cautious about relying on the proprietary traffic data for long-term infrastructure decisions and are worried that their budgets and staffing will not enable the jurisdiction to monitor and respond in real time.

The rise in smart phone applications addressing mobility has conspicuously targeted drivers, but cyclists, pedestrians, and public transit users are also benefitting from a growing collection of mobility-enhancing apps that are being paid for with advertising rather than taxes. Emerging applications, such as Waze, Strava, and RideScout, are being developed and marketed to cover the full spectrum of modes available to urbanites trying to get from point A to point B. As they route people, these applications simultaneously amass huge databases of anonymized information on the flow of transportation systems within cities.

Waze is a free social mobile application that allows drivers to create and utilize live maps, real-time traffic updates and turn-by-turn navigation. With over ten million active users each day in the United States, Waze anonymizes its data, then stores the date, time of day, speed, origin and destination, routing preferences, and crowd-sourced road conditions (e.g., accident reports, congestion, police traps) for all users. The company will aggregate trip records into a large database to track city flows, travel trends, updated traffic conditions, and congestion.

Strava allows cyclists, runners, and athletes to track and record data and interact with other users. Strava users upload about 2.5 million activities (cycling or running) every week, from hundreds of countries. Strava allows users to track their performance metrics (e.g., routes, speed, elevation, frequency) and time of day and activity dates. The aggregated, anonymized database is marketed toward municipalities in a program called StravaMetro that contains GPS points, cyclists and pedestrian counts, origin-destination matrixes, and the routes chosen (and not chosen) by cyclists and runners. Providing historic counts, StravaMetro has so far partnered with Oregon DOT; Toronto, Canada; London, England; Brisbane, Australia; Orlando, Florida; Baltimore, Maryland; Evanston, Illinois; and 15 other metros around the world.

The free application RideScout launched in November 2013. For every city where RideScout is available, users will be able to compare location, scheduling, and pricing for aggregated public and private transportation options based on their trip. RideScout utilizes GPS points, fostered partnerships with 350+ ride organizations, and pools available public transit information. In December, RideScout will begin beta testing to verify which mode the user actually ended up taking. Cities that access RideScout data could get real-time information regarding which mode shares are chosen and not chosen, flows through the city via public and private transportation networks, and aggregated transit preferences in relation to weather, time of day, and trip distance.

Some cities have found they need to validate the private data against their traditional survey methods to ensure that the proprietary data accurately reflects all travel in their community. For example, Oregon DOT, an early pioneer in use of the mega-data, found it needed to assess seasonal and time of day discrepancies and distance at the macro level, as well as cyclist behavioral patterns, level of bike stress, and verification of infrastructure use at the micro or

street level. After analysis, the agency found that riders in the private database ride like the general public in their traditional surveys.

Oregon DOT is now using the data to create a multimodal travel demand forecasting model, including transit, vehicles, freight, bicycling, and pedestrians. Before using the private sector streams, cities have expressed the need to evaluate a few critical considerations. Agencies must assess the validity of the data collection method of the application and ensure they are using an anonymized and secure database, perhaps even using a less exact start and end location to protect privacy. These applications used also should include an "opt out" option so users preferring not to be tracked are omitted from the municipal database.