



BAY AREA  
AIR QUALITY  
MANAGEMENT  
DISTRICT

## ADVISORY COUNCIL AIR QUALITY PLANNING COMMITTEE

### COMMITTEE MEMBERS

EMILY DRENNEN, CHAIRPERSON  
HAROLD BRAZIL  
WILLIAM HANNA  
ROBERT T.P. HUANG, Ph.D.

KEN BLONSKI  
IRVIN DAWID  
JOHN HOLTZCLAW, Ph.D.  
KENDAL OKU

THURSDAY  
FEBRUARY 7, 2008  
9:30 A.M.

7<sup>TH</sup> FLOOR BOARD ROOM

1. **Call to Order – Roll Call**
2. **Public Comment Period**

*Public Comment on Non-Agenda Items, Pursuant to Government Code Section 54954.3. The public has the opportunity to speak on any agenda item. All agendas for Committee meetings are posted at the District, 939 Ellis Street, San Francisco, at least 72 hours before a meeting. At the beginning of the meeting, an opportunity is also provided for the public to speak on any subject within the Committee's purview. Speakers are limited to five minutes each.*

3. **Approval of Minutes of October 10, 2007**
4. **Impact of MTC's Regional Transportation Plan (RTP) on State and Regional Climate Protection Efforts**

*The Committee will receive presentations by Ashley Nguyen, MTC Senior Transportation Planner Analyst and Harold Brazil, MTC Air Quality Planner Analyst on MTC's RTP.*

5. **Committee Member Comments/Other Business**

*Committee members, or staff, on their own initiative, or in response to questions posed by the public, may ask a question for clarification, make a brief announcement or report on his or her own activities, provide a reference to staff regarding factual information, request staff to report back at a subsequent meeting on any matter or take action to direct staff to place a matter of business on a future agenda.*

6. **Time and Place of Next Meeting** – 9:00 a.m., Thursday, April 3, 2008, 939 Ellis Street, San Francisco, CA 94109.
7. **Adjournment**

**CONTACT EXECUTIVE OFFICE - 939 ELLIS STREET SF, CA 94109**

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[www.baaqmd.gov](http://www.baaqmd.gov)

- To submit written comments on an agenda item in advance of the meeting.
- To request, in advance of the meeting, to be placed on the list to testify on an agenda item.
- To request special accommodations for those persons with disabilities notification to the Clerk's Office should be given in a timely manner, so that arrangements can be made accordingly.

**BAY AREA AIR QUALITY MANAGEMENT DISTRICT**  
**939 ELLIS STREET, SAN FRANCISCO, CALIFORNIA 94109**  
**(415) 771-6000**

**EXECUTIVE OFFICE:**  
**MONTHLY CALENDAR OF DISTRICT MEETINGS**

**FEBRUARY 2008**

<u>TYPE OF MEETING</u>	<u>DAY</u>	<u>DATE</u>	<u>TIME</u>	<u>ROOM</u>
<b>Board of Directors Regular Meeting/ Retreat - (Meets 1<sup>st</sup> &amp; 3<sup>rd</sup> Wednesday of each Month)</b> - CANCELLED	Wednesday	6	9:45 a.m.	Board Room
<b>Advisory Council Air Quality Planning Committee (Meets 1<sup>st</sup> Thursday of each even Month)</b>	Thursday	7	9:30 a.m.	Board Room
<b>Advisory Council Technical Committee</b> - (Meets 1 <sup>st</sup> Monday of each even Month)	Monday	11	9:30 a.m.	Board Room
<b>Advisory Council Public Health Committee (Meets 2<sup>nd</sup> Wednesday of each even Month)</b>	Wednesday	13	1:30 p.m.	Room 716
<b>Board of Directors Public Outreach Committee (Meets 1<sup>st</sup> Thursday every other Month)</b>	Thursday	14	9:30 a.m.	4 <sup>th</sup> Floor Conf. Room
<b>Joint Policy Committee</b>	Friday	15	10:00 a.m. – 12:00 p.m.	BCDC 50 California St., 26 Fl. San Francisco, CA
<b>Board of Directors Regular Meeting (Meets 1<sup>st</sup> &amp; 3<sup>rd</sup> Wednesday of each Month)</b>	Wednesday	20	9:45 a.m.	Board Room
<b>Board of Directors Legislative Committee</b> (Meets 4 <sup>th</sup> Monday of every Month)	Monday	25	9:30 a.m.	4 <sup>th</sup> Floor Conf. Room
<b>Board of Directors Budget &amp; Finance Committee - (Meets 4<sup>th</sup> Wednesday of each month)</b>	Wednesday	27	9:30 a.m.	4 <sup>th</sup> Floor Conf. Room
<b>Board of Directors Mobile Source Committee – (Meets 4<sup>th</sup> Thursday of each Month)</b>	Thursday	28	9:30 a.m.	4 <sup>th</sup> Floor Conf. Room

**MARCH 2008**

<u>TYPE OF MEETING</u>	<u>DAY</u>	<u>DATE</u>	<u>TIME</u>	<u>ROOM</u>
<b>Board of Directors Regular Meeting (Meets 1<sup>st</sup> &amp; 3<sup>rd</sup> Wednesday of each Month)</b>	Wednesday	5	9:45 a.m.	Board Room
<b>Board of Directors Public Outreach Committee (Meets 1<sup>st</sup> Thursday every other Month)</b>	Thursday	6	9:30 a.m.	4 <sup>th</sup> Floor Conf. Room
<b>Advisory Council Executive Committee</b> (Meets 2 <sup>nd</sup> Wednesday of every odd Month)	Wednesday	12	9:00 a.m.	Room 716
<b>Advisory Council Regular Meeting (Meets 2<sup>nd</sup> Wednesday of every odd Month)</b>	Wednesday	12	10:00 a.m.	Board Room

## MARCH 2008

<u>TYPE OF MEETING</u>	<u>DAY</u>	<u>DATE</u>	<u>TIME</u>	<u>ROOM</u>
<b>Board of Directors Stationary Source Committee</b> <i>(Meets 3<sup>rd</sup> Monday Quarterly)</i>	Monday	17	9:30 a.m.	Board Room
<b>Board of Directors Regular Meeting</b> <i>(Meets 1<sup>st</sup> &amp; 3<sup>rd</sup> Wednesday of each Month)</i>	Wednesday	19	9:45 a.m.	Board Room
<b>Board of Directors Climate Protection Committee</b> <i>(Meets 3<sup>rd</sup> Thursday every other Month)</i>	Thursday	20	9:30 a.m.	4 <sup>th</sup> Floor Conf. Room
<b>Joint Policy Committee</b>	Friday	21	10:00 a.m. – 12:00 p.m.	MTC 101 - 8 <sup>th</sup> Street Oakland, CA 94607
<b>Board of Directors Legislative Committee</b> <i>(Meets 4<sup>th</sup> Monday of every Month)</i>	Monday	24	9:30 a.m.	4 <sup>th</sup> Floor Conf. Room
<b>Board of Directors Budget &amp; Finance Committee</b> <i>(Meets 4<sup>th</sup> Wednesday of each month)</i>	Wednesday	26	9:30 a.m.	4 <sup>th</sup> Floor Conf. Room
<b>Board of Directors Mobile Source Committee</b> – <i>(Meets 4<sup>th</sup> Thursday of each Month)</i>	Thursday	27	9:30 a.m.	4 <sup>th</sup> Floor Conf. Room

## APRIL 2008

<u>TYPE OF MEETING</u>	<u>DAY</u>	<u>DATE</u>	<u>TIME</u>	<u>ROOM</u>
<b>Board of Directors Regular Meeting</b> <i>(Meets 1<sup>st</sup> &amp; 3<sup>rd</sup> Wednesday of each Month)</i>	Wednesday	2	9:45 a.m.	Board Room
<b>Advisory Council Air Quality Planning Committee</b> <i>(Meets 2<sup>nd</sup> Wednesday of each even Month)</i>	Thursday	3	9:00 a.m.	Room 716
<b>Advisory Council Technical Committee</b> – <i>(Meets 1<sup>st</sup> Monday of each even Month)</i>	Monday	7	9:30 a.m.	Board Room
<b>Advisory Council Public Health Committee</b> <i>(Meets 2<sup>nd</sup> Wednesday of each even Month)</i>	Wednesday	9	1:30 p.m.	Room 716
<b>Board of Directors Regular Meeting</b> <i>(Meets 1<sup>st</sup> &amp; 3<sup>rd</sup> Wednesday of each Month)</i>	Wednesday	16	9:45 a.m.	Board Room
<b>Joint Policy Committee</b>	Friday	18	10:00 a.m. – 12:00 p.m.	BCDC 50 California St., 26 Fl. San Francisco, CA
<b>Board of Directors Budget &amp; Finance Committee</b> <i>(Meets 4<sup>th</sup> Wednesday of each month)</i>	Wednesday	23	9:30 a.m.	4 <sup>th</sup> Floor Conf. Room
<b>Board of Directors Mobile Source Committee</b> – <i>(Meets 4<sup>th</sup> Thursday of each Month)</i>	Thursday	24	9:30 a.m.	4 <sup>th</sup> Floor Conf. Room
<b>Board of Directors Legislative Committee</b> <i>(Meets 4<sup>th</sup> Monday of every Month)</i>	Monday	28	9:30 a.m.	4 <sup>th</sup> Floor Conf. Room

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Bay Area Air Quality Management District  
939 Ellis Street  
San Francisco, California 94109

DRAFT MINUTES

Air Quality Planning Committee  
9:30 a.m., Wednesday, October 10, 2007

1. **Call to Order:** Chairperson Ken Blonski called the meeting to order at 9:35 a.m.

**Roll Call:** Ken Blonski, Chairperson, Harold Brazil, Irvin Dawid, Emily Drennen, William Hanna (9:55 a.m.), John Holtzclaw, Ph.D., Robert Huang, Ph.D.

**Absent:** Kraig Kurucz, Ed Proctor.

2. **Public Comment Period.** Norman Rolfe, S.F. Tomorrow, 2233 Larkin St., #4, San Francisco, CA, 94109.
3. **Approval of Minutes of June 13, 2007:** Dr. Holtzclaw moved approval of the minutes; seconded by Chair Blonski. Chair Blonski called for approval and the draft minutes were approved unanimously.
4. **Bay Area Congestion Pricing Presentation by:** *Mr. David Burch provided introductions and involvement of Air District to date with the topic of congestion pricing.*

Mr. Burch briefed the Committee on a couple of initiatives in the Bay Area regarding congesting pricing. In addition, Mr. Burch provided history and context for why the Air District is interested in pricing measures and the potential implications for air quality.

Mr. Hanna arrived at 9:55 a.m.

Mr. Burch stated, congestion pricing is one of several possible pricing measures that are sometimes referred to as market based measures. From the standpoint of air quality, market based measures are basically a type of transportation control measure that can help to reduce to emissions, by relying on market based pricing mechanisms to reduce driving and reduce emissions. Market based measures can include increased gas taxes or user fees that could involve roadway pricing; which congestion pricing is one of the options, which could include bridge tolls, high occupancy toll lanes, and it also involves parking fees or vehicle registration fees that are based upon the amount of vehicle emissions. So there is a wide range of things that fit under the rule brick of market based measures. There has been an impressive gain in improving air quality from the technology side, such as tailpipe emissions, cleaner fuels, etc. on a per vehicle, per mile basis. The Air District has made great progress for improving air quality. However, that progress has been eroded to a certain extent by the continual growth in the size of vehicle fleet, and the amount that those are driven, which is called vehicle miles traveled (VMT). VMT is projected to continually increase and that is going to continue to offset some of our progress. Many economists and planners argue that a

big part of the reason for the rapid growth in VMT is that we do not price our roadway systems in a way that would encourage more efficient use.

Mr. Burch further stated that the progress towards implementing market based measures in the real world has been uneven, especially here in the U.S. There have been concerns about technological feasibility in terms of how the tolls are collected; equity, the potential impacts on low income drivers and most importantly, political acceptability. Today, the technical issues have been largely resolved, equity can be addressed and public opinion may be gradually warming to pricing measures. There are a lot of real world examples of pricing schemes today. As you may be aware, there are zones or cordoned pricing schemes that have been implemented in Singapore, London and Stockholm, as they have been successful and have had impressive results. There have been High Occupancy Toll Lanes (HOT) where individual, private, single occupant drivers can buy into the carpool lane. This has been in Southern California since the 1990s in Houston and now they are coming online in places like Minneapolis as well.

Mr. Burch noted that there are two key ways that market based measures can help improve air quality. By increasing the price of vehicle ownership or vehicle operation costs, we can reduce demand and reduce driving, secondly, we can take the revenues that are generated from those mechanisms and use them to promote and fund alternative modes of transportation. In the case of congestion pricing, there is one more benefit; which is that if you have a congested facility, and low speeds, emissions tend to be higher in stop and go driving to the extent that we can relieve the congestion, and potentially reduce the emissions in those corridors. That said, it is not necessarily a foregone conclusion that congestion pricing would be good for air quality, a lot of it is going to depend on the particulars of how you go about implementing that.

A couple of cautionary notes is 1) new lanes added and we increase capacity, that certainly has a potential to generate and induce demand, new trips and even if you do not necessarily increase capacity by building a new lane; 2) if moved, some of the cars that are in the mixed flow lanes that may be congested into a HOV lane and you make the traffic flow better in those mixed flow lanes.

It is possible that there could be some induced demand if the trip becomes quicker, than someone taking the bus that may decide to switch over to driving. It is also important to point out that there is a speed curve related to emissions and emissions tend to be highest at slow speeds and tend to best at the range of 35-50 miles per hour. As speeds increase above 50 mph, the emissions are both criteria pollutants and CO<sub>2</sub> begin to increase again; as you want to avoid the slow speed, but do not want to encourage the real high speed.

Last precautionary note, is if HOV lanes and carpool lanes were to become more congested because of single occupant vehicles going into those lanes, that could erode the travel time advantage of carpools, vanpools and buses; and that is not something we want to happen. This is largely a management issue that could be addressed, but it is something that should be borne in mind. Bottom line is that we are closer than ever to seeing tangible congestion pricing projects here in the bay area. State legislation has authorized four corridors as HOT lane demonstrations here in the bay area, which are all scheduled to come online by the year 2015. This includes I-680 project the Sunol Grade, between Alameda and Santa Clara counties. Also, I-580 eastbound in the Tri-Valley area which includes Pleasanton and

Livermore and down in Santa Clara county both highway 101 and highway 85 are also slated for HOT lane demonstration projects.

In addition to those corridor specific projects, MTC is currently working on a regional HOT lane network study, and are potentially looking at a very robust, comprehensive system, that would eventually convert all HOV lanes in the region into HOT lanes and expand network and serve as a mechanism for an enhanced regional express bus network. Another thing happening at the regional level right now is that MTC is updating the Regional Transportation Plan. Various performance targets in terms of trying to reduce congestion, emissions and VMT. They are evaluating different packages of capital projects as well as pricing measures and land use measures to see what would help to get them towards those targets, and the preliminary analysis show that the pricing measures would be the most effective of those options, in terms of trying to meet targets related to reducing emissions and congestion.

Mr. Burch noted that the Committee would hear from Jean Hart, regarding the project for the HOT lanes on I-680 and then from Elizabeth Bent, from the San Francisco County Transportation Authority, which she will talk about Doyle Drive.

Mr. Burch concluded his presentation, stating that Air District staff is participating on a technical review committee for these types of efforts with both MTC and San Francisco County Transportation Authority. The Air District will work to ensure that as we go forward, these types of projects and initiatives are implemented in a way that will provide the greatest benefit to air quality.

Discussion ensued among the Committee, with regard to HOV and HOT lane in the Bay Area.

***Jean Hart, Executive Director, I-680/Sunol Smart Carpool Lane Joint Powers Authority, presented to the Committee, the I-680 HOT Lane Update.***

Ms. Hart indicated that the Joint Powers Authority encompasses members of the Alameda County Congestion Management Agency, the Alameda County Transportation and Improvement Authority in Santa Clara County, and the Valley Transportation Authority. It has five members who are elected to the respective agency boards and then serve on the Joint Powers Authority.

Ms. Hart stated that she appreciated the opportunity to speak about the I-680 HOT Lane Project and that as a part of the presentation, will talk about the polling that was conducted by the Joint Powers Authority in response, and have conducted focus groups as well, as well as public opinion polls. Some of these polls were general and some by people who use the corridor.

Ms. Hart indicated that the I-680 project will go under construction next year and will be the first HOT lane project in the bay area. San Francisco is very aggressive in their approach, but it appears now in looking at the schedule, that the I-680 project will be first. It is a 14-mile stretch that includes both Alameda County and Santa Clara County and that is the reason that VTA is participating on the Joint Powers Authority. The 14 miles begins near the city of Pleasanton near route 84 on I-680, and terminates near highway 237 in the city of

Milpitas, which is in Santa Clara County. Eleven miles are within Alameda County and three miles are in Santa Clara County.

The HOT lane will work first and foremost and will be free to carpoolers and other normal HOV users. Vehicles that have the ability to use hybrid vehicles in the HOV lane will also be able to use the HOT lane without a fee, just as carpoolers will be to use the lane without a fee. Solo drivers can choose to pay to use the carpool lane, as there will not be any toll booths, but will be able to use your Fas Trak transponder that is currently used on the bay area bridges.

Conceptionally, the tolls will increase when the traffic on the non-toll lane is more congested, so the price of the facility is tied in to the level of congestion not only on HOT lanes, but on the mixed flow lanes. No one else in the United States has tried this approach, and will truly provide the price of what the benefit is that the solo driver will be paying by using the HOV lane. There are currently two HOT lanes in Southern California and there is one on I-15 in San Diego, one on SR-91 that is in Orange County and there is a HOT lane that is operated in Minneapolis that is called the Min Pass. Those are current HOT lanes and the Joint Transportation Authority has information from them as well as polling. In general, the people who will be using it are parents who have children at day care centers, workers that have deadlines, contractors and anyone that needs to be somewhere at a specific time needs a reliable commute and carpoolers and transit vehicle users.

The poll indicates that the general populous in Alameda County, Contra Costa County and San Joaquin County and polls were also conducted for people who are quarter users of the I-580 and I-680 corridor, so there has been feedback from the general population of the area as well as corridor users. Generally, commuters who use the current facilities support the concept about 2 to 1 and the statistics are 64% to 33%.

Most of the commuters say that they would use the HOT lane, but all have said that they will not use it every single day. There were some before and after polling about the concept of HOT lanes; how often would you use it, and the response was that people stated that they would use it all the time. Then when it was mentioned that there was going to be a charge for this based on the levels of congestion and then the response was that we would use it when we need to get some place in a hurry, at a fixed time. So then it dropped to about 30% to 40% who would use it regularly and that would be three days a week.

How we propose to operate the HOT lane is that it will operate 24-hours a day, 7-days a week. The HOV lanes would also operate that way, and is considered to be different than any of the current carpool lanes in the bay area, who have limited operation. The proposal is that both the HOV as well as HOT lanes operate 24/7. The toll for solo drivers ranges from a minimum of \$1 and that would be for the total trip to its most congested around \$7-\$9 at peak of the peak.

There would no toll booths, as there are limited entry and exit points. The solo drivers would decide each trip based on both one their needs; as well as the current toll whether or not to use the facility. Also, there would be enhanced enforcement from the California Highway Patrol. The Joint Powers Authority has been working with San Diego to develop the technological approach to enforcement, but we are not far enough along yet, to employ that.



Ms. Hart had the Committee come down to view the illustration of the project. The facility plan is north/south and shows Pleasanton, Fremont and Milpitas. At present, there is a HOV lane on I-680 corridor, so that lane would be converted from a HOV to a HOT lane. The facility would start where the current HOV lane starts. Carpoolers would be able to enter this lane as well as SOV users. A sign would indicate that the HOT lane is ahead, and as well as display the cost of the HOT lane. There will be two exit points. The first one would be located at the Auto Mall which would indicate the price for example to Mission which is a major connector to I-880, so then you will see a price says to Mission Boulevard, showing the driver the cost. Drivers will be able to make a decision whether or not it is worth it to pay whatever that cost it. The driver would be able to decide if they are in the mixed flow lane, they would choose not to enter into the HOT lane. If they decide that they are willing to pay that price, they would enter into the HOT lane and then they would be required to stay in the HOT lane as well as HOV users until the exit after Auto Mall, Washington.

The cost is conducted electronically via the Fas Trak reader with an antenna, just like when going through the existing toll booths on the Bay Bridges and the antenna reads the transponder and the price that is one the dynamic pricing. At any point in time there could be three different prices depending on how you drive. The formula that will be used to determine the price is based on the congestion in the mixed flow lanes is perfectly rational and makes a lot of sense. Currently the facilities only monitor the congestion that is in the HOT lanes, so that you can guarantee a certain speed that is only based on the congestion there, not on the congestion in the mixed flow lanes; so this way you are only paying for what the benefit in the amount of time that you are saving, which is considered to be a true user's fee as well.

Mr. Brazil inquired about the pricing in San Diego. Ms. Hart's response's was that it is priced first with the HOT lane only. I-15 express is currently doing congestion pricing on the lane itself. Ms. Hart indicated that the price does go up and down, but based on the congestion in I-15.

Signage will alert the drivers that there will be a carpool and Fas Trak lane ahead. The text is currently being worked on, as the sign should be informative and not confusing. With additional signs showing the cost to exit at the various points.

The timeline of the project is estimated as follows:

- Utility relocation – 2007;
- Final design – 2008;
- Construction begins – 2008; and
- HOT Lane opens - 2010

The costs and revenues are estimated as follows:

- Construction Costs - \$20.9M;
- Electronic Tool System Costs – \$11.4M;
- Other Costs - \$8.1M;

- Total Project Costs - \$40.4M; and
- Projected Revenue - \$5M/per year

Ms. Hart clarified that at this time, there is only a southbound HOV lane; and there is no northbound HOV lane. Funding from the southbound will help pay for the northbound and the northbound will be built as an HOV/HOT lane. This will provide funding to complete that system.

The benefits are that this is a new choice, to travel faster than they would otherwise. It will save time, one would be able to use it when need to, as you are not required to use it everyday. There are no changes in the HOV lane, except for the limited ingress and egress, so that is a change for the carpoolers. Some cities have shown that the limited access does improve safety and the revenue that is generated by the corridor would not be otherwise available without this type of a facility.

Ms. Hart concluded her presentation and asked if the Committee had any questions. Chairperson Blonski opened it to the Committee for questions.

Dr. Holtzclaw thanked Ms. Hart for the presentation, and noted that HOV lanes and HOT lanes can be quite beneficial. Dr. Holtzclaw questioned the third item that the revenue would be used for building I-680 Northbound HOV lanes; wanted to know if there would be any capacity increases as a part of that with the widening of lanes, etc. Ms. Hart's response was that there will be added capacity in that there is currently no HOV lane in the northbound direction. There is only at present, a southbound direction. So there would be the capacity of a carpool lane, plus a HOV/HOT lane combination; which will add capacity.

Dr. Huang asked if the \$5M was gross revenue. Ms. Hart response was yes, this would be the estimated gross revenue. In addition, Dr. Huang asked about the annual operation and maintenance cost of the project. Ms. Hart indicated that it will be about \$1.1 to \$2.1 million per year; leaving the gross revenue to be about \$3.8 to \$4 million for either transit or for a HOV facility.

Mr. Hanna has about the congestion level in the HOV lane at present and how would that increase with the addition of solo drivers; which will augment what is already happening. Ms. Hart stated that currently it is not a high use carpool lane, that there are about 600 vehicles per hour in the lane, which is 600-700, which is not a high use. The way the formula is being developed to determine the cost of the trip, is to base it on about 1,300 so that what you are selling really is that capacity. Going from 600 to 1,300, if there are more carpoolers, then there will be more vehicles in the lane, less capacity that would be available the higher the price.

Mr. Brazil asked about the estimated air quality benefits at this time. Ms. Hart stated that an air quality analysis has not been conducted.

Mr. Dawid asked about the estimated revenue of about \$1.1 to \$2 million dollars that is anticipated to maintain the facility; of this amount how much of this will be used to maintain the added expense of having an HOT lane? Ms. Hart responded that it will include operating the facility, which will be the back office, contracting to use their account management.

Other fees will be to pay for enforcement of the facility by the California Highway Patrol, and the utilities associated with the system. It includes some of the toll data centers. Ms. Hart stated that they are anticipating 1-2 staff members who will serve as customer service representatives, who will deal with just HOT lane issues only. The actual account service providers will be done by data.

Ms. Drennen had a question about the northbound construction and wanted to know if you have an estimate of \$3.9 million per year and you are looking at northbound construction costs would it be roughly similar to the southbound construction costs or slightly higher? Ms. Hart responded to Ms. Drennen and explained that for the HOV lanes it is much higher, and that it would be paid for over a long period of time. State legislation that is pending signature of the Governor is to allow for indeterminate length of time you can operate as a HOT lane. Currently, there is a four year demo period that was approved; this would take off the sunset. If that was done, there would be an allowance for bonding to be able to move on the northbound facility to bond for the improvements and then use the revenues to pay for that, along with transit service.

Ms. Drennen asked if the express buses were the most useful use of the transit money if there is significant transit demand for that service itself, or could it go to augment enhance current transit service and asked who are the individuals dealing with the transit side of it. Ms. Hart stated that is one of the issues that will be tackled when the Joint Powers Authority does their first expenditure plan, which is estimated to be done by 2009, to determine where the revenues go and a part of that will be so what is the next call. Ms. Hart stated that it would probably be transit for some time and what does that look like? Will it be a combination of express and localized service, but feels that everyone would want enhanced service in the corridor, but at this point it is unknown.

Final question from Ms. Drennen regarding the air quality benefits and stated that she was surprised that the project has not gone through and wondered if it was in the EIR stage. Ms. Hart informed Ms. Drennen that there is environmental clearance, and there was an environmental document that done for the HOV lane and that just the add on for the HOT lane and that was done two years ago and was a Cat Ax, because it was considered to be categorical exclusion and exemption because it is primarily the ITS portion of managing it.

Chairperson Blonski again thanked the speaker and provided Ms. Hart with a token of the Committee's appreciation.

Dr. Holtzclaw asked one final question with regard to how much money would be generated that would be applied to transit service per year. Ms. Hart estimated that this is just a guess, as this is a policy decision by the Joint Powers Authority, that it would probably be at least 50% after the maintenance.

Dr. Holtzclaw also asked if there has been any consideration given to considering rather than constructing the HOT/HOV lanes Northbound; taking a lane and Ms. Hart responded that that has not been discussed at this time.

***Ms. Elizabeth Bent, Senior Transportation Planner, San Francisco County Transportation Authority presented to the Committee the Mobility, Access and Pricing Study for downtown San Francisco; and the San Francisco Doyle Drive Value Pricing program.***

Ms. Bent provided the Committee with an overview of the Transportation Authority, noting that it is a congestion management agency for San Francisco and in that role, monitors the congestion on the streets and roads, but also manage the half cents sales tax dedicated to transportation improvements in San Francisco; which is Prop. K.

Ms. Bent indicated that her discussions with the Committee would be spent on the mobility, access and pricing study, as well as the urban partnership program through the Department of Transportation, as well as the congestion problem. As some individuals are completely convinced that congestion is horrible in San Francisco and that some people think it is not as bad as New York and that we have a lot of time to address the issue.

Ms. Bent's presentation consisted of two maps showing congestion in San Francisco with transit routes operating below 8 mph and some operating at 3-4 mph. Auto routes operate below 10 mph, and freeway routes operate below 30 mph.

Travel in downtown San Francisco, there are about 1,000,000 daily trips and about 400,000 trips during the peak period in this same area. During the daily mode share, half of those trips are by car. Mode share during the peak period is better, but would like to figure out a way to make people's transit options a lot better, as well as improve the overall traffic flow on the streets.

When looking at the travel to downtown San Francisco, in particular the transit mode share, by region; what was found is that it is doing pretty well from the East Bay, but when looking at the South Bay and the Peninsula, we are only capturing about 23% of the transit trips. Ms. Bent stated that this is something that we are seeing not only because of the amount traffic congestion on the freeways and access into the city from the South, but it is also noticed that the North Bay and the East Bay are already controlled by some sort of pricing system, because they are tolls on those bridges.

When looking at congestion in San Francisco, it is noted that half of an average regional trip is spent simply sitting traffic. This number could increase by 2030, which is considered the Horizon Year. Also, when looking at where the congestion delay is experienced the most, and where it is worst, it was noted that Downtown and SOMA experienced about ¼ of the regional delay.

Many wonder how does transit fair in terms of congestion and because so many of our streets are mixed use traffic, a lot of congested auto routes are also transit routes. It was noted that bus speeds are 9-35% slower than auto speeds and that transit reliability hovers around 70%, which many of those lines are operating below 8 mph. Ms. Bent stated that this is a decrease in funding for transit, and an increase in the standard for on time reliability.

Ms. Bent noted that when she spoke to folks at the Transit Effectiveness Project, that MTA is running, what was stated that their top concerns are better reliability, faster travel times and more peak service and feels that these are all things that a congestion pricing program could help to deliver.

Ms. Bent indicated that when looking at the environment, that individuals are already aware that congestion has an impact on air quality. Private autos produce about 47% of emissions in San Francisco alone in 1990. This number will increase in the next couple of years, as San Francisco currently has a very aggressive greenhouse gas emissions reduction target, and at present is coordinating with S.F. Environment and the Air District on the Climate Action Plan, and how we can use congestion pricing to implement some of the programs. Questions were raised in the past with regard to why is MUNI not more efficient. Ms. Bent indicated that only 1% of greenhouse gas emissions in San Francisco are produced by the transit fleet.

In looking at the economy, it was calculated that the cost of lost time, to out of pocket costs from excess fuel and also to goods movement. In the region, this number is about \$42B in 2005 and in San Francisco alone it is \$2.3B. This number is anticipated to increase by 2030 to about \$3.8B. The effort will be made on how to do better and to give people back that lost time and to helping people to not simply not through out costs in terms of fuel. As fuel prices rise, the numbers could also rise.

While looking at the quality of life in other cities it was noted that congestion pricing programs have been able to deliver significant changes to the quality of life. Road safety has increased, through a decrease in pedestrian injuries and also, there is an estimate of about 20% increase in bicycle trips in London for example. Ms. Bent noted that it is a part of their program, but like to see if this could be delivered in San Francisco.

Ms. Bent asked why should congestion pricing be considered for this particular tool in managing congestion. Ms. Bent stated that this is an economic tool that has been around for many years and has been used in many other industries as well. It is a way to manage and under price scarce resources, which is typically over used. The successful implementation in London as well as Stockholm and several other cities have shown that there is political acceptance of a program like this and public acceptance as well. Lastly, it shows that the technology is there and had advanced to a place where it can actually support a system; rather than hinder a system like this.

Ms. Bent stated that congestion pricing is also contained in the countywide transportation plan, which is part of the Prop. K plan which is the expenditure plan for the countywide transportation plan, which was approved by the voters and also a part of the Climate Action Plan. When looking at the transportation action categories; discouraging driving is a category that congestion pricing falls within, but it is also a way to implement some of the other programs that are contained in that category, like increasing the use of public transit, increasing the availability of ridesharing and these are some of the things that we would like to look when we are speaking about reinvesting in the package of improvements for mobility.

Congestion pricing for San Francisco is a package, which involves a fee that is paid by the motorist on congested areas or on key congested routes, but the revenues are reinvested into improving the transportation options. When the program is being evaluated and the different alternatives that exist, they will be evaluated as a package. To try to understand not only the cost of administering the program, but the cost of delivering the other options that would help to support the choices that people will make. When talking about how those choices flesh out, we want to understand how many people might shift their travel to a different time of day, for example they might drive in at 7:00 a.m. instead of 8:30 a.m.

Lastly, public outreach and awareness are very key pieces of a program like this, to make sure that people understand both before their trip and during their trip, when they are entering a price area, and how they can make a better choice if they choose to do that. There are also multiple different ways of paying in Stockholm. For example, people can pay their fees at 7-Eleven and that is something that we want to understand that there are traditional ways of paying, but also can we reach out to the business community and other industries to understand how we can leverage their sectors as well.

Several case studies have been completed and are looking at different cities to understand what is the footprint for a program like this and how would it flesh out in San Francisco. In London, there is an all day flat fee charge that is levied between 7:00 a.m. – 6:00 p.m. and the charge does not vary. When looking at Stockholm, the charge does vary over the course of the day. It is highest in the peak of the peak and lowest at the end of the day, but then there is a much lower charge in mid day. What was found is that there are a range of benefits that reduce delays in traffic as you would expect increase speeds, but better transit reliability and higher transit ridership; decreasing greenhouse gas emissions and pedestrian injuries, as well as substantial net revenues that help to fund the program.

The most congested area in San Francisco will be geared towards zone based schemes, sort of figuring out if there is a program that can be designed that focuses on this area; but if there are other potential alternatives. Can the key routes be identified that might be charged or key gateways into the city that we may want to charge.

Some of the goals/benefits of congestion pricing include:

- Improving system performance and investment
- Improved travel times
- Reduced travel time variability
- Increased speeds
- Increased non-auto mode share

Enhancing environment and quality of life

- Improved air quality
- Improved road safety
- More leisure time, participation in civic life

Maintaining economic vitality

- Efficient goods movement (reliable deliveries)
- Improved trips to trade, retail, employment centers
- Decreased travel costs for individuals and businesses

Supporting growth

- Consistent with Transit First Policy
- Better land use decisions

A defined package will be presented to public at workshops throughout the study and also using the feedback to incorporate and refine those alternatives and also again, determine the cost and revenues of potential packages not of just one piece of the system. Many areas will

be reviewed, as there are about seven different tasks in this study that is being focused on including public participation, the technology, as well as the financial and economic impacts and benefits.

Ms. Bent noted that at present, the agency is in the process of expanding the travel demand model, to understand how people within the region would react to a program as such. There is a San Francisco based model that is very robust, but because it would be a regional impact the agency would like to understand how folks in the nine county regions would react. Alternatives are also being designed that would be analyzed throughout the program and discussions with transit operators both locally and regionally have been held to understand what is the horizon of improvements that have within the timeframe that a system might be implemented over the horizon year 2030. How can we either speed up the improvements, devise more and what they look like and what are their particular constraints for delivering new transit services.

Recommendations on a potential program should be completed by Summer 2008.

The United States Department of Transportation (USDOT) announced that they would make about \$1B available to up to five cities to invest in congestion management programs. However, the package includes the 4T's of congestion management which include:

- Tolling (congestion pricing);
- Transit and ferry investments;
- Technology; and
- Telecommuting

San Francisco was successful in competing for this program, one of only five cities in the nation. There is a possibility that San Francisco could receive up to \$159M in grant funds to improve congestion in the bay area.

The key piece of this program is the value pricing program on Doyle Drive, which means tolling Doyle Drive. This has been contemplated for many years, to fill the funding gap for the replacement project on Doyle Drive.

Several agencies are collaborating on this project, as many different agencies contributed to the bay area's urban partnership proposal, which includes MTC, MTA, the Golden Gate Bridge District and Caltrans. Legislative authority is needed to access the grant funds.

The Doyle Drive replacement project will include a parkway design that would allow people to reconnect with the environment, Crissy Field, the Marina and the Presidio on both sides of Doyle. Also, it would be a much safer facility, with slightly wider lanes.

This is the highest priority safety project in the state and it the worst rated bridge in the state for seismic safety and it also have a sufficiency rating with the federal government of 2 out of 100; which is pretty bad.

This is an \$810M project, \$605M committed in state and local funds. The existing facility tolled to fill fund gap with an estimate of \$165M.

Elements of the program are:

- Doyle Drive Value Pricing Program (1);
- Arterial management (2, 3);
- Smart Parking (4);
- Integrated mobility account; and
- Expansion of city telecommuting program

The travel patterns within Doyle Drive include:

Most trips destined for downtown

- 120,000 daily
- 58,000 inbound
- 16,500 inbound during AM peak

Most trips from North Bay

- 85% during AM peak hours
- 70% during off-peak hours

Tolling Design:

- Preliminary toll studies: \$1-\$2/day could shift 10%-12% of traffic to off-peak or transit;
- Updated toll study to be conducted pending CHAMP 4.0 model completion

The Mobility, Access and Pricing Study (MAPS) are a feasibility study. This is a chance to understand how pricing for mobility can be used in San Francisco on a broader scale and try to identify the particular areas that we might focus on and whether or not it is feasible. The Urban Partnership Program is a demonstration project, and the idea is to lead back to this idea of skepticism, whether or not government can deliver and to demonstrate the value of a program like this.

In addition, UPA demonstrating value it will:

- Close Doyle funding gap with self-help;
- Manage peak period demand;
- Showcase technology;
- Concept of re-investing revenue in the Doyle 101 corridor; and
- Build public trust in government to deliver
  - Transparent public process
  - Public participation

The monitoring and evaluation of Doyle program will help inform decision-making for potential area-pricing in San Francisco.

Ms. Bent concluded her presentation.



Mr. Dawid noted that the presentation was excellent. Mr. Dawid asked about the downtown mobility project, and mentioned cordoned pricing which is what New York City is doing, stating that anybody below 85<sup>th</sup> Street will get charged and even if you live within the zone you are charged half. There are several ways to design a zone based system, as you can charge people that are coming in and out or you can charge in/out and within. The question that everyone is trying to understand is how do folks traveling within travel today? Are most of these people already on transit and is there any benefit to charging them for driving? Also, in other cities they have been able use residence discounts so that is another thing that will be considered.

Ms. Bent also indicated that New York's program charges up to \$8 a day and a flat fee. At present, the agency is looking at different ways that they can vary the fee to understand how people are traveling in the middle of the day, in particularly because they want to make sure that the downtown businesses are still active and that people are still coming downtown to shop.

Mr. Dawid also noted that he looked at MTC's website and encouraged the Committee to also view the site and see the San Francisco Bay Area Accelerate Projects funded by USDOT. Mr. Dawid stated that the biggest chunk of money out of that \$159M is \$58M that is going to the SF Go Arterial Traffic management. Mr. Dawid asked how much of that, since that is the biggest chunk and the Doyle Drive tolling is only getting \$12M and \$35M going toward the rebuilding. Out of the \$58M how much in general is VRT as there are several VRT corridors within the city; how much of the \$58M will benefit VRT generically within San Francisco?

Ms. Bent indicated that it is a pretty sizable amount, since some of the corridors that are destined to have these SF Go improvements are Geary and VanNess and because the 38 Line runs on Geary and runs into the downtown area. It will benefit, as the idea was to leverage the existing transit system in the transit corridors and because they are street based improvements, Golden Gate Transit Buses that are traveling on those corridors will also benefit.

Mr. Brazil asked about the definition of traffic. Ms. Bent responded it is calculated between the difference between the time your trip actually takes and the free flow travel time.

Dr. Huang had a broader question in general, asking Ms. Bent her thoughts or anticipation would be the obstacles that will either slow the project down or abort it; and what strategies have been considered. Ms. Bent indicated that the agency is conducting a significant amount of public outreach, as this is something that is not yet experienced in the bay area. Particularly when it comes to the concept of peak period pricing, when going to New York for example, you have peak period pricing on the trains as well as on the roads, when you look at the tolls and things like that. So that is something that people will need to understand what that means and educate people on how that works, and also collecting that feedback in trying to understand what the improvements need to be.

Ms. Bent noted that what was found in the feasibility study is that people are really wondering about the affordability and the business impacts and this has been seen in other cities, which was broadly neutral or an improvement. Many folks that are lower income do support programs like this. The business impacts vary on how the program is designed. For

example in London, there was a broadly neutral impact on downtown businesses; but in Stockholm there was actually a 5% increase in retail revenues.

Also, Ms. Bent indicated that the technology is not an obstacle, because the technology is there, it is just a question of how it is designed.

Dr. Huang indicated that his understanding is that both London and Singapore were able to get the program through because of the very strong government pressure and wanted to know how much support do they have at this time? Ms. Bent indicated that their Board suggested that they apply for the feasibility study funding for that grant and the Board was very interested to see whether or not this is something that could work here, because it has worked so successfully in London and Stockholm and several other cities.

Dr. Holtzclaw thanked Ms. Bent and asked about the North Bay at 42% by transit and 23% from the South Bay and Peninsula. That we should be thinking very strongly about the South Bay and Peninsula and wanted to know their plans with using the revenues and tolling coming up from the South; recognizing that state and federal freeways are hard to put into a tolling system. Ms. Bent informed that Committee that they are not considering tolling the freeways themselves, as they do not have the authority to do so, as this program is designed to focus on the design of the city streets. This makes it more difficult, because the boarder to the south corridor is most poor and there are many other access points.

Chairperson Blonski thanked Ms. Bent and commented that the presentation was excellent and also presented her with a gift on behalf of the Air District.

**Speakers:** The following individuals spoke on this agenda item:

Gerald Cauther  
900 Paramount Road  
Oakland, CA 94610

Normal Rolfe  
S.F. Tomorrow  
2233 Larkin St., #4  
San Francisco, CA 94109

Ms. Drennen noted that in response to the speakers that she has drafted a resolution and perhaps passing the resolution today about these issues and wanted to check with Chairperson Blonski and the Committee as a whole.

Chairperson Blonski asked for any opinions by the Committee and some members suggested that they not make any decision at this time, but would like to hear the resolution.

**Action:** To calendar a discussion of a resolution in reference to agenda item 4.

Mr. Dawid noted that Ms. Drennen is right on target and that the Committee has seen three excellent presentations today and would like the idea of getting the resolution in the minutes. Chairperson Blonski suggested that Ms. Drennen read the resolution. Ms. Drennen began reading the following:

WHEREAS, high-occupancy toll lanes (HOT lanes) offer carpool priority to solo drivers willing and able to pay a toll; and

WHEREAS, HOT lanes are a new and unproven transportation mechanism that could impact air quality through induced traffic demand and increased emissions from increased travel speed, and

WHEREAS, HOT lane projects have the potential to greatly influence several social equity issues such as: an income-segregated resource, reduce travel times for current users of HOV lanes; and

WHEREAS, HOT lanes are often touted for their potential to fund new transit service, but there are currently no agreed-upon targets for funding transit operations.

THEREFORE BE IT RESOLVED that the BAAQMD Advisory Council urges the Air District to develop policy guidelines for HOT lane projects including: air quality impacts; social equity concerns; and setting a minimum percentage of revenue to be dedicated to transit from HOT lanes.

Chairperson Blonski asked if there was any discussion and Mr. Hanna commented that this was just a proposition for something that the Committee may want to consider next time.

Chairperson Blonski requested that this resolution be part of the discussion on, the agenda for the upcoming meeting; which the Committee agreed. Dr. Holtzclaw suggested that he would like to see as a part of this, the potential of any capacity expansions to increase traffic and impact air quality.

5. **Committee Member Comments/Other Business.** Chairperson Blonski thanked Mr. Dawid for putting this meeting together and contacting the speakers and felt he did an excellent job. Mr. Dawid thanked Mr. Burch.

Chairperson Blonski's final comment was that he was pleased with the meeting.

6. **Time and Place of Next Meeting.** 9:30 a.m., Wednesday, December 10, 2007 – 939 Ellis Street, San Francisco, CA 94109.
7. **Adjournment.** 11:57 a.m.

Vanessa Johnson  
Executive Secretary



# I-680 HOT Lane Update

Prepared for the  
Bay Area Air Quality  
Management District

October 10, 2007

Southbound  
I-680  
HOT Lane



# I-680 HOT Lane Project

- Bay Area's first toll lane project.
- 14-mile stretch of southbound I-680 over the Sunol Grade.
  - Starts at Highway 84 on the north
  - Ends at Highway 237 on the south
  - 11 miles in Alameda County, 3 miles in Santa Clara County

Southbound  
I-680  
HOT Lane

# Project Location



Southbound  
I-680  
HOT Lane

# How It Will Work

- HOT lane is free for carpools and other normal HOV users.
- Solo drivers can choose to pay to use carpool lane.
- No toll booths -- pay via FasTrak transponder.
- Toll rises when traffic on other lanes is more congested.



Southbound  
I-680  
HOT Lane





# Who Will Use HOT Lane

- Parents with waiting kids.
- Workers with deadlines.
- Contractors with appointments.
- Anyone in a hurry.
- Carpoolers and transit vehicles continue to use the lane for free.

Southbound  
I-680  
HOT Lane





# I-680 Poll Results

- Commuters support the HOT lane by 2-to-1 margin (64% to 33%).
- Most commuters (59%) would use the HOT lane.
- Enough drivers would be regular users to make the project financially successful without clogging the HOT lane.

(Source: 2007 poll by SA Opinion Research)

Southbound  
I-680  
HOT Lane



# HOT Lane Operations

- Free for HOV users 24/7.
- Toll for solo drivers 24/7 -- minimum toll \$1.
- No toll booths -- pay via FasTrak transponder without slowing down.
- Limited entry/exit points.
- Solo drivers decide each trip based on their need and the current toll.
- Strict enforcement.

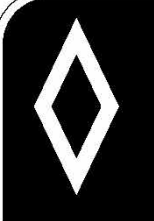



Southbound  
I-680  
HOT Lane

# Lane Alert Sign -- 1 mile



Southbound  
I-680  
HOT Lane

# Toll Rate Sign -- 1/2 mile

	CARPOOL TOLL FREE	
	 <b>FASTRAK™</b>	<b>TOLL</b>
<b>TO Mission</b>		----- <b>\$ 2.50</b>
<b>TO Calaveras</b>		----- <b>\$ 3.50</b>

Southbound  
I-680  
HOT Lane

# Lane Entry Sign



Southbound  
I-680  
HOT Lane

# HOT Lane Timeline

- Utility relocation -- 2007
- Final design -- 2008
- Construction begins -- 2008
- HOT Lane opens -- 2010



Southbound  
I-680  
HOT Lane



# Cost and Revenue

Construction costs	\$20.9 m
Electronic Toll System costs	11.4 m
Other costs	<u>8.1 m</u>
Total Project Cost	\$40.4 m
Projected Revenue:	\$5 m / year

Southbound  
I-680  
HOT Lane



# Where Revenue Will Go

Toll revenue will pay for:

1. Operating and maintaining the toll facility.
2. Public transit service in the I-680 corridor.
3. Building the I-680 northbound HOV lane and other HOV facilities.

Southbound  
I-680  
HOT Lane





# HOT Lane Benefits

- New choice for solo drivers -- pay to travel faster/save time.
- Regular or occasional use is OK.
- No change in HOV lane benefits for carpool users.
- Limited access improves safety.
- Revenue to fund corridor improvements.

Southbound  
I-680  
HOT Lane



# Tell Us What You Think

- Check the project website:  
[www.680smartlane.org](http://www.680smartlane.org)
- Contact us at  
[info@680smartlane.org](mailto:info@680smartlane.org)

Southbound  
I-680  
HOT Lane

# **SAN FRANCISCO MOBILITY, ACCESS & PRICING STUDY and URBAN PARTNERSHIP GRANT**



**BAAQMD  
Advisory Committee**

**Zabe Bent**

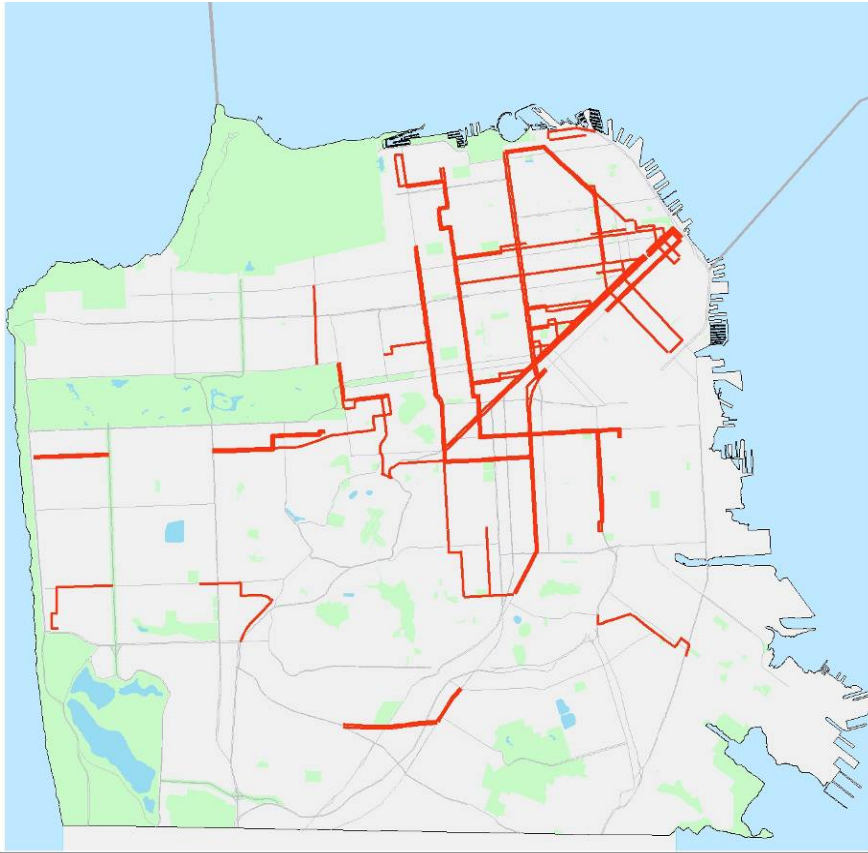
- ❖ The Congestion Problem
- ❖ The Policy Response: Congestion Pricing and Mobility Investment
  - Defining Congestion Pricing
  - Case Studies
- ❖ The Mobility Access and Pricing Study
- ❖ USDOT Urban Partnership program



# The CONGESTION PROBLEM



## Congested Transit Routes



**Congested Transit Segments in San Francisco (PM)**

- Congested transit segment (travel speed of 8 MPH or less)
- Other arterial

0 0.5 1 2 Miles



## Congested Auto Routes



**Congested Road Segments in San Francisco (PM Peak)**

- Congested freeway (travel speed of 30 MPH or less)
- Congested city street (travel speed of 10 MPH or less)

0 0.5 1 2 Miles



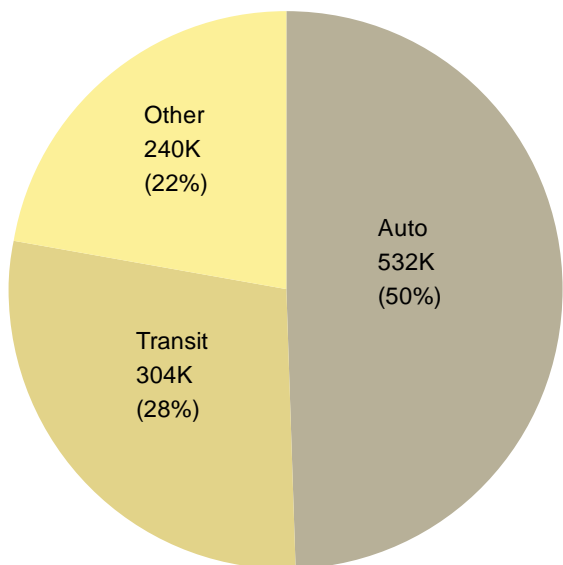
Source: SFCTA, Spring 2006 LOS Monitoring

# TRAVEL to DOWNTOWN SF

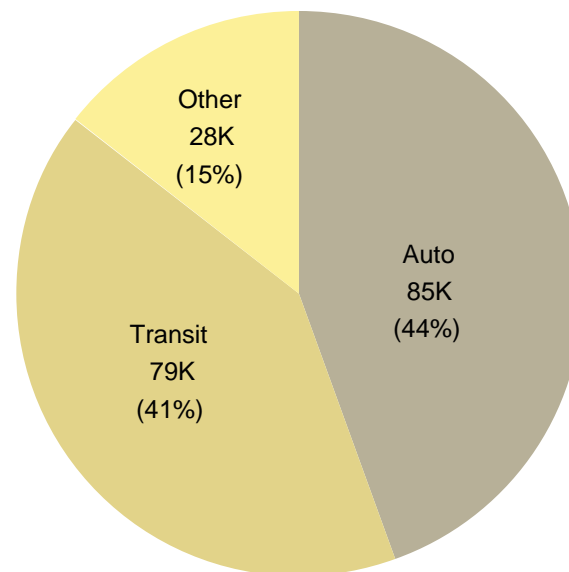


- ❖ 1,000,000 trips daily to Downtown, Civic Center, and SOMA
- ❖ 400,000 trips in the AM/PM peak periods

Mode Share to downtown SF  
(daily)



Mode Share to downtown SF  
(during PM peak)



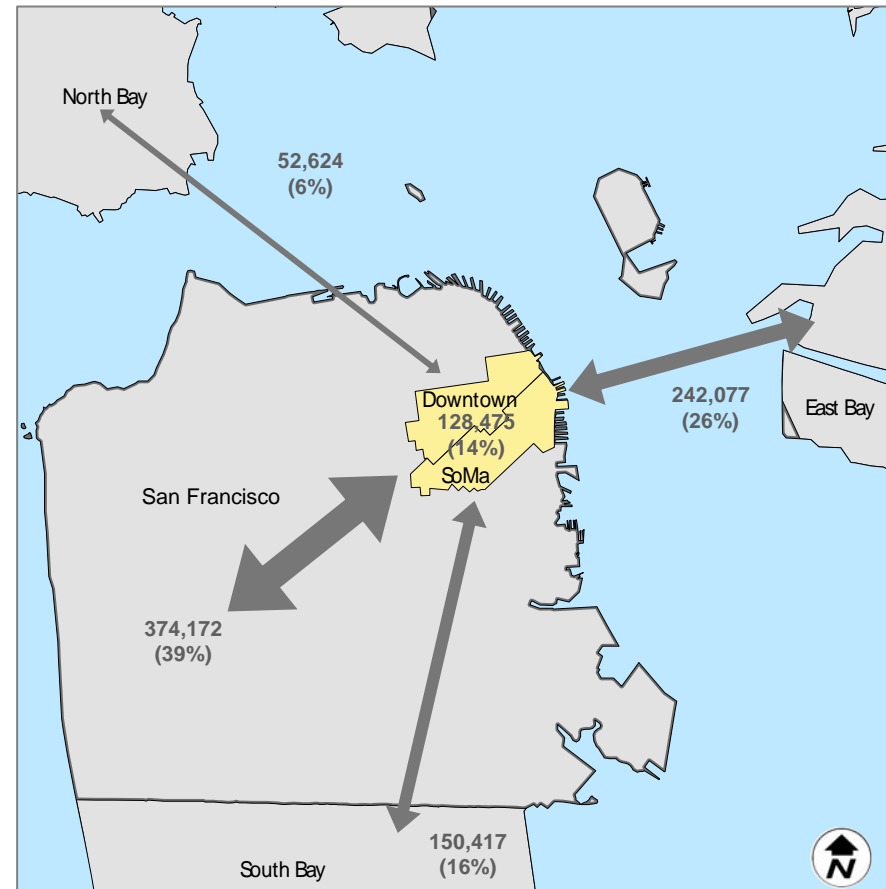
Source: SF-CHAMP



## ❖ Transit mode share to/from downtown (41%, pm peak)

- San Francisco: 25,000
- Bay Area: 51,000
  - South Bay/Peninsula: 23%
  - East Bay: 66%
  - North Bay: 42%

Daily Trips to/from San Francisco  
(2005)

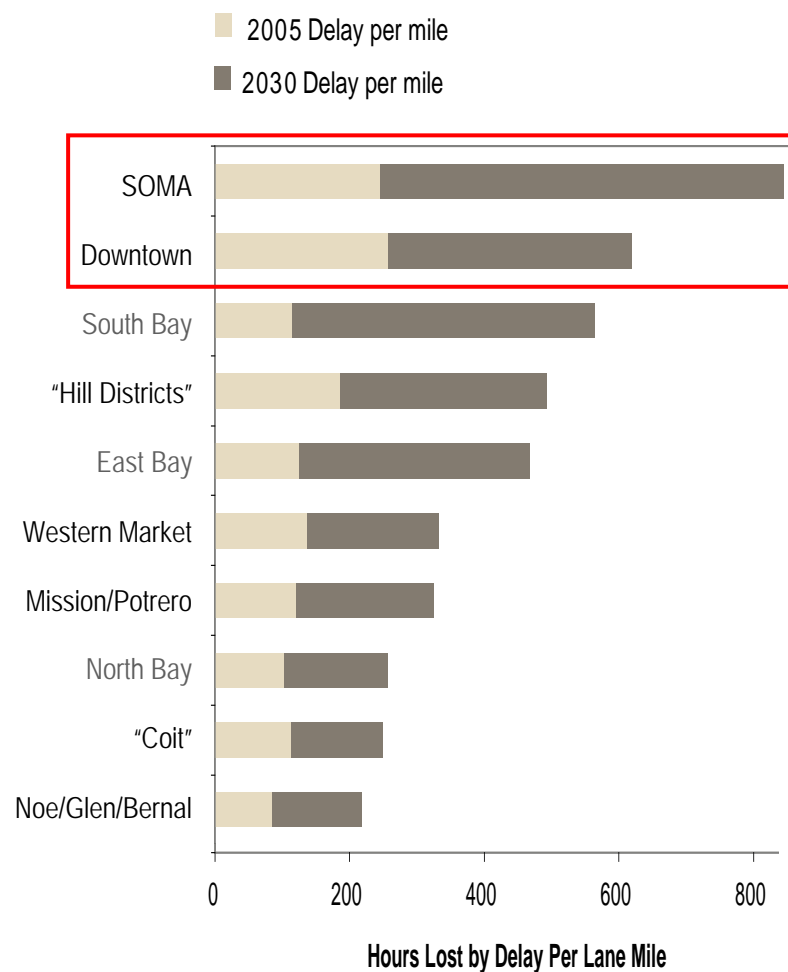


Source: SF-CHAMP

## *Congestion causes significant delays*

- ❖ Half of average regional trip spent in traffic
- ❖ 7.3 million hours lost to drivers daily by 2030
  - Delay could grow to almost  $\frac{3}{4}$  of average trip
- ❖ Downtown & SOMA experience worst delays (about  $\frac{1}{4}$  of regional delay)

### Top Ten Congested Areas in the Bay Area



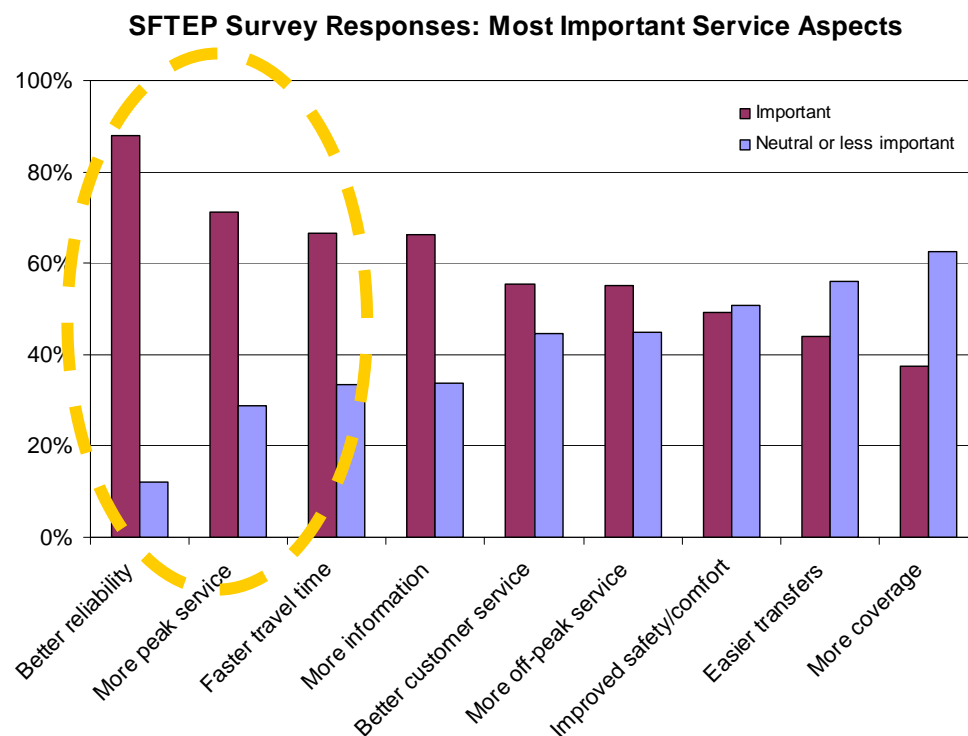


# SYSTEM IMPACTS of CONGESTION



## *Congestion degrades transit performance*

- ❖ Bus speeds are 9 – 35% slower than autos
- ❖ Transit reliability continues to hover around 70%
- ❖ Many lines operating below 8 mph



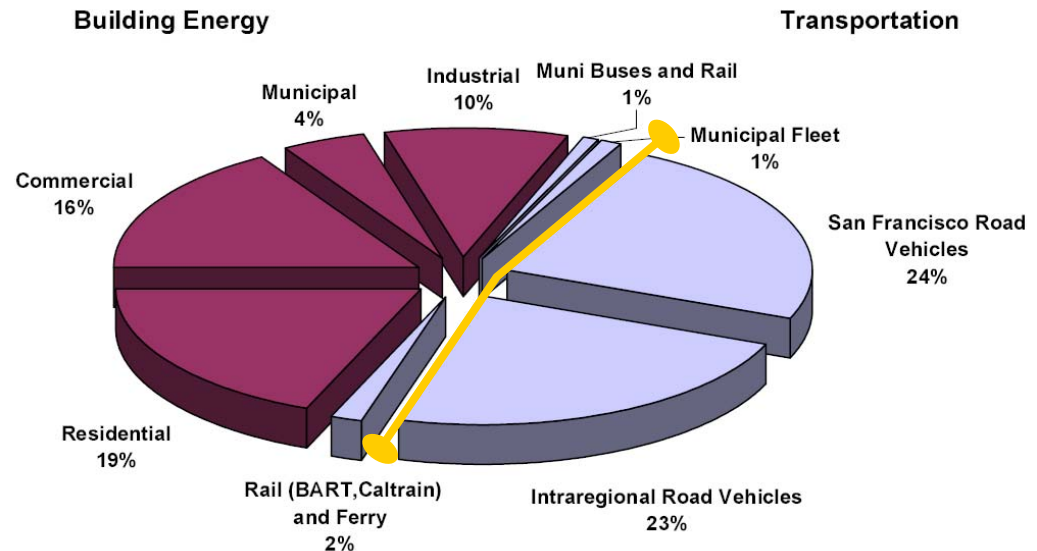
Source: SFMTA Transit Effectiveness Project

# CONGESTION and the ENVIRONMENT



- ❖ Private autos produced 47% of emissions in SF in 1990
  - total eCO<sub>2</sub> was 9.1M tons
  - projected to increase to 10.8M tons by 2012

❖ SF reduction target:  
20% below 1990 by 2012  
(SF Climate Action Plan)



Source: SF Climate Action Plan

# CONGESTION & the ECONOMY



- ❖ Congestion cost the region ~\$42B in 2005

	2005 Annual Congestion Cost (in millions)*			
	Cost of Lost Time	Cost of Excess Fuel	Cost to Goods Movement	Total Cost of Congestion
San Francisco	\$1,725	\$300	\$275	\$2,325
	2030 Annual Congestion Cost (in millions)*			
	Cost of Lost Time	Cost of Excess Fuel	Cost to Goods Movement	Total Cost of Congestion
San Francisco	\$2,850	\$450	\$500	\$3,800

\* Figures are rounded and may not total exactly  
 Source: SF-CHAMP

## ❖ Road safety

- 9% reduction in pedestrian injuries (London)
- 20% increase in bicycle trips (London)

## ❖ Public health

- Lower emissions
- More active lifestyle

## ❖ Community & civic life

- More opportunities for participation and leisure time with family



*“Traffic congestion affects virtually every aspect of people’s lives – where people live, where they work, where they shop, and how much they pay for goods and services.” – USDOT*



- ❖ Economic tool for managing scarce, underpriced resources
- ❖ Successful implementation in London (2003)
- ❖ SF Countywide Transportation Plan (2004)
- ❖ SF Climate Action Plan (2004)

Transportation Action Categories	Estimated CO <sub>2</sub> Reduction (tons/year)
A. Increase the Use of Public Transit as an Alternative to Driving	87,000
B. Increase the Use of Ridesharing as an Alternative to Single Occupancy Driving	42,000
C. Increase Bicycling and Walking as an Alternative to Driving	10,000
D. Support Trip Reduction Through Employer-Based Programs	28,000
E. Discourage Driving	155,000
F. Increase the Use of Clean Air Vehicles and Improve Fleet Efficiency <sup>2</sup>	641,000
<b>Total</b>	<b>963,000</b>

Source: San Francisco Department of Environment

Figure 1-5

## Congestion Management in the General Plan and Countywide Transportation Plan

### Transit First Policy:

- » Encourage multimodalism – the use of transit and other alternatives to the single -occupant automobile
- » Give priority to the maintenance and expansion of the local transit system and improvement of regional transit connections

### Transportation Demand Management:

- » Reducing the demand for the private automobile and promote alternatives such as transit, walking, bicycling and car-sharing

### Transportation System Management:

- » Optimize the cost-effective use of existing facilities
- » Prioritize the movement of people and goods rather than vehicles

### Parking Management:

- » Minimize needed parking, particularly all-day or long-term parking
- » Encourage short-term parking, ridesharing, transit, bicycling, shared parking, and appropriate pricing of parking services

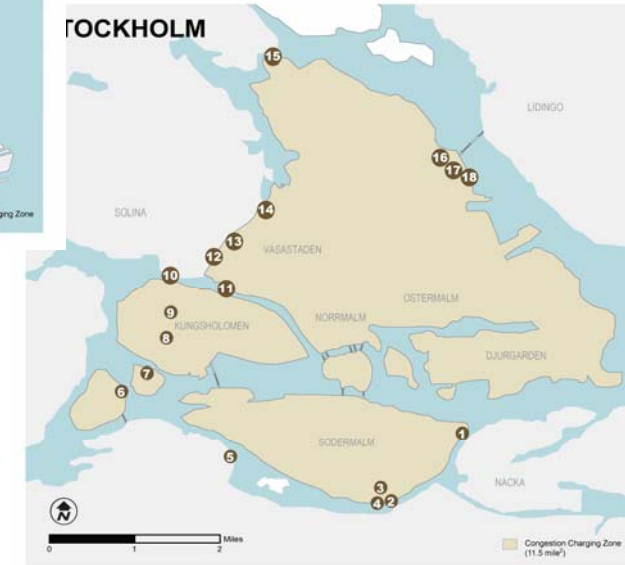
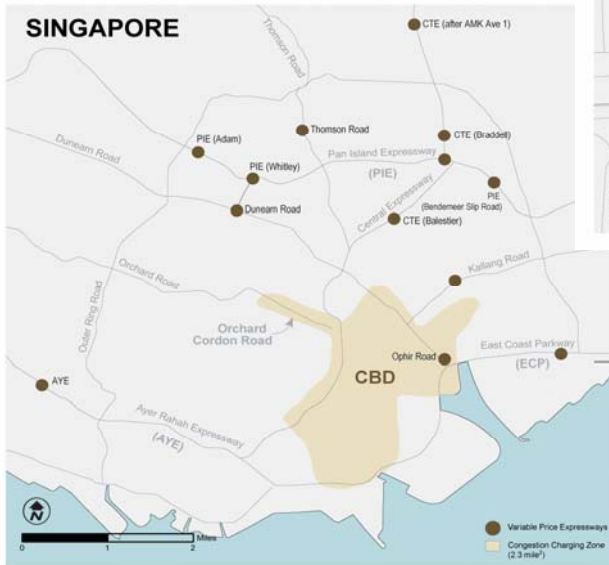
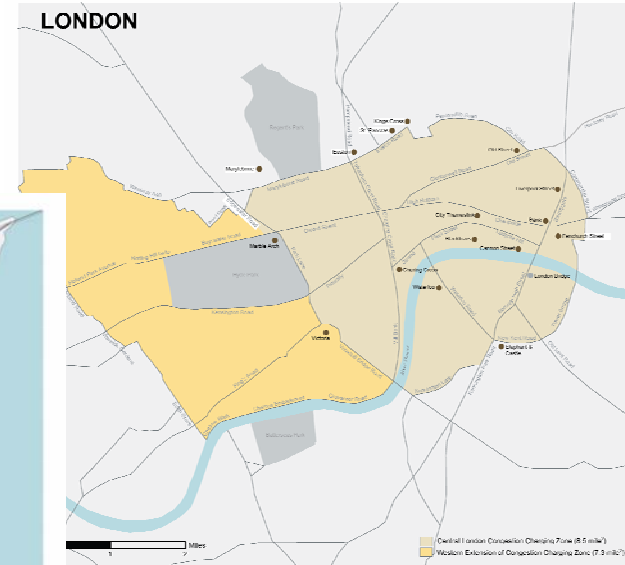
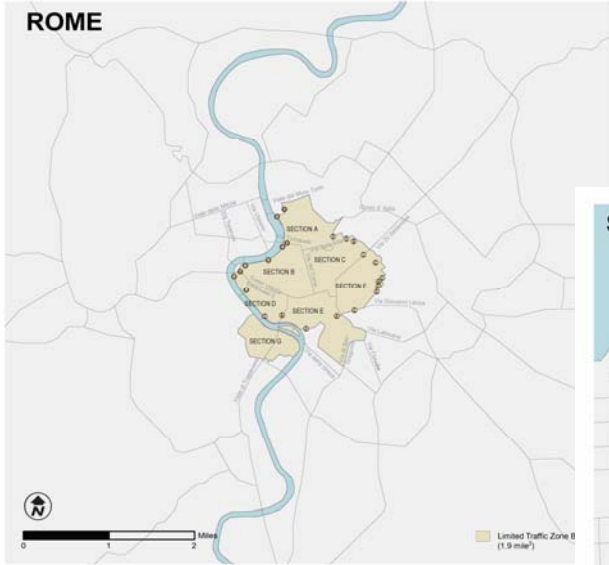
# WHAT IS “CONGESTION PRICING”?

- ❖ Fee paid by drivers in congested areas or routes
- ❖ Revenues reinvested in improving transportation options
- ❖ “Barrier-free” detection and enforcement
- ❖ Public outreach and awareness
- ❖ Multiple, convenient payment methods





# CONGESTION PRICING in PRACTICE



## ❖ Improving system performance and investment

- Improved travel times
- Reduced travel time variability
- Increased speeds
- Increased non-auto mode share

## ❖ Enhancing environment and quality of life

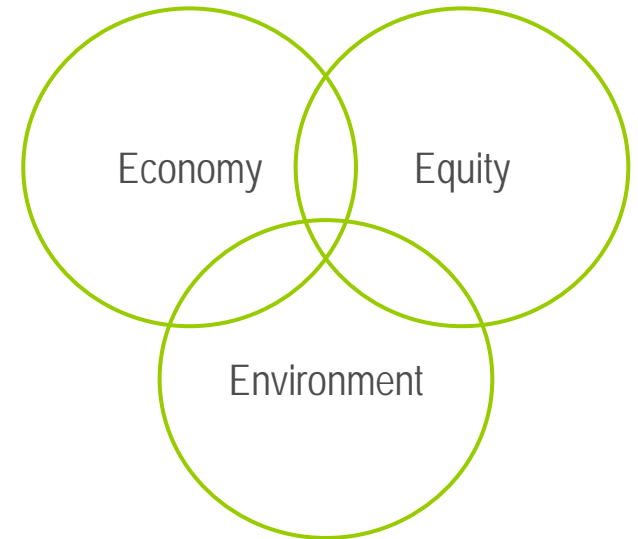
- Improved air quality
- Improved road safety
- More leisure time, participation in civic life

## ❖ Maintaining economic vitality

- Efficient goods movement (reliable deliveries)
- Improved trips to trade, retail, employment centers
- Decreased travel costs for individuals and businesses

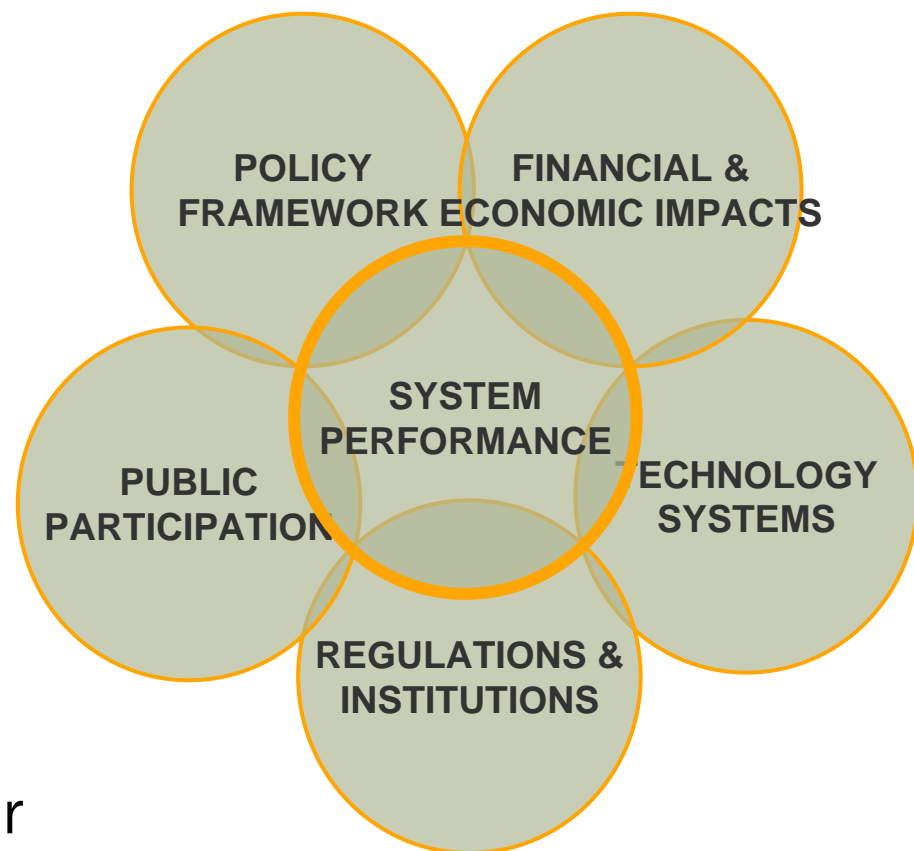
## ❖ Supporting growth

- Consistent with Transit First Policy
- Better land use decisions





- ❖ Feasibility for San Francisco
  - severity of auto *and* transit congestion
  - availability of auto alternatives
- ❖ Define and evaluate potential mobility packages
  - mobility and accessibility
  - environment quality of life
  - economic vitality
- ❖ Determine costs and revenues of potential packages
- ❖ Develop recommendations and/or potential implementation plan

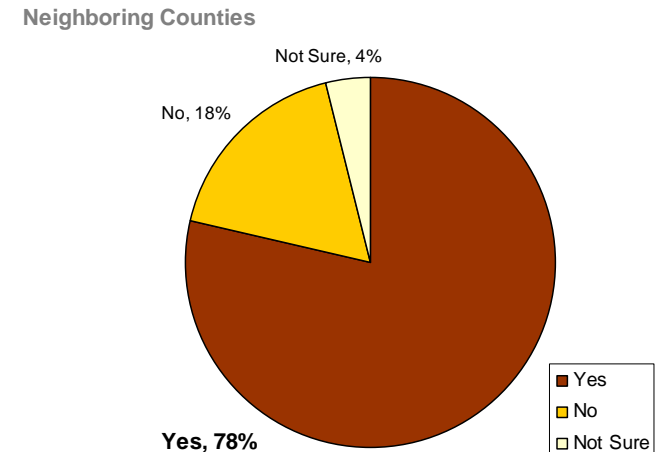
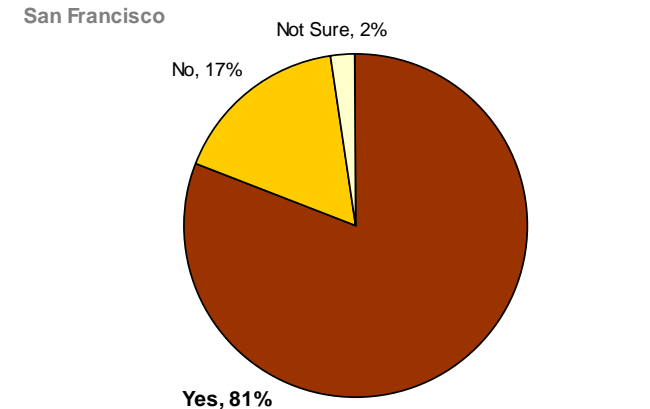


# WHAT WE'VE LEARNED FROM USERS...



- ❖ 88% of travelers consider downtown SF congested
- ❖ 60% of travelers visit downtown SF in off-peak hours
- ❖ Vast majority of travelers have transit options
- ❖ Top benefits expected: improved environment and traffic reduction
- ❖ Top concerns: business impacts, affordability, and skepticism

Perceived Availability of Transit to downtown SF



## ❖ Policy Working Group

- SFMTA
- Mayor's Office of Economic Development
- BART
- MTC/BATA
- SF Planning Department
- Caltrans
- Golden Gate Bridge District
- Alameda County Congestion Mgmt Agency
- FHWA, FTA

## ❖ Technical Advisory Committee

- SFMTA
- BART
- Caltrain/SamTrans
- AC Transit
- MTC/BATA
- ABAG
- Bay Area Air Quality Mgmt District
- Golden Gate Bridge District
- Port of SF

## ❖ Business Advisory Council

- Bay Area Council
- SF Chamber of Commerce
- Union Square Association
- Market Street Association
- Transportation Mgmt Association
- UCSF
- PG&E
- AAA
- Etc...

## ❖ Stakeholder Task Force

- SPUR
- TALC
- Sierra Club
- Livable City
- SF Bicycle Coalition
- Senior Action Network
- Walk SF
- SF Convention & Visitors Bureau
- Etc...

Kick-off Workshop planned: October 17, 5pm – 8 pm,  
Milton Marks Conference Center (Civic Center)

## ❖ Goals:

- Raise concept/study awareness
- Collect feedback on wants and concerns
- Collect feedback on potential alternative designs

## ❖ Open house:

- Existing conditions
- Concept/study education
- Case studies

## ❖ Breakout sessions:

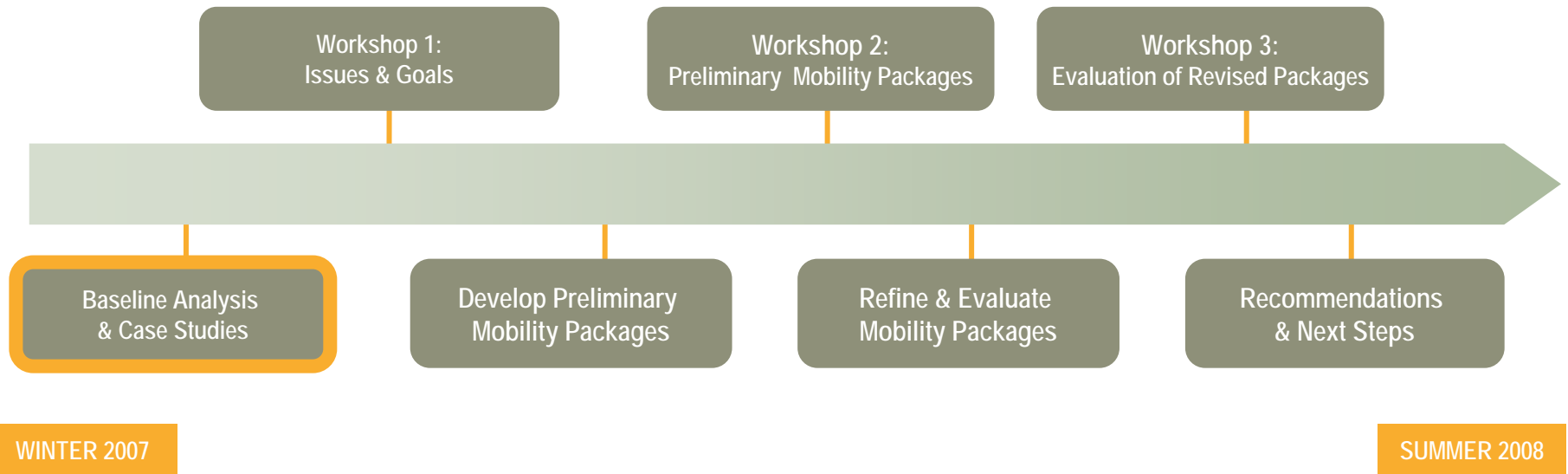
- Pros & cons of congestion pricing
- Design your own program



# CURRENT MAPS TEAM ACTIVITIES



- ❖ Model development
- ❖ Alternatives design
- ❖ Transit operator interviews
- ❖ Market research
- ❖ Direct outreach, workshop planning

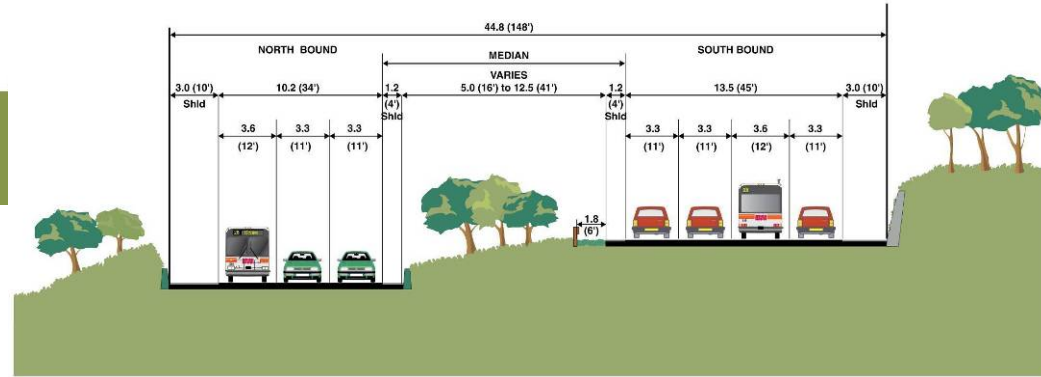
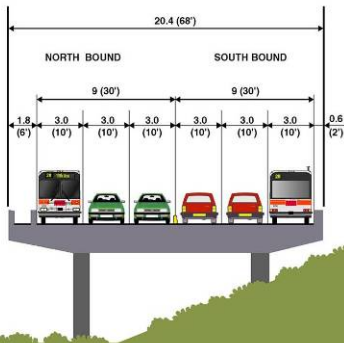




*SF selected as a US DOT Urban Partner;  
Region to receive \$159M in grant funds*

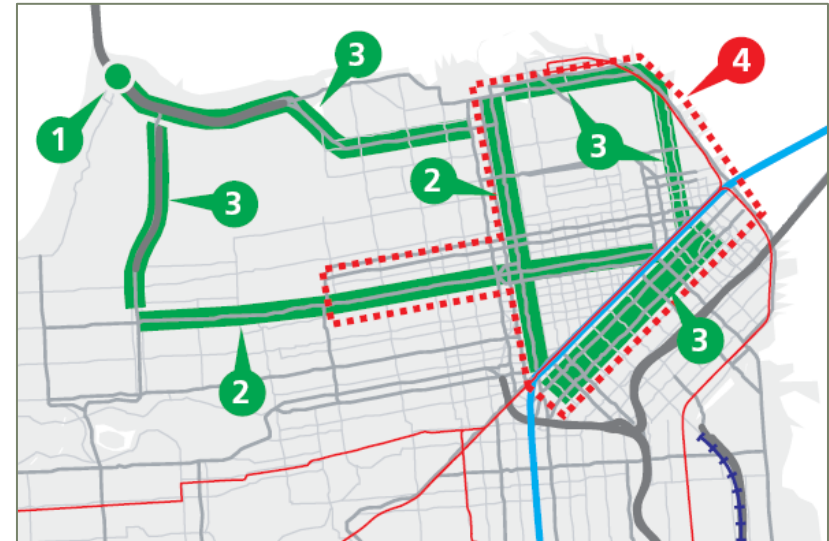
- ❖ Doyle Drive Value Pricing Program is centerpiece
- ❖ Program demonstrates US DOT's 4Ts of congestion management:
  - tolling (congestion pricing)
  - transit and ferry investments
  - technology
  - telecommuting
- ❖ Implementing agencies include: SFCTA, MTC, SFMTA, GGBHTD and Caltrans
- ❖ Legislative authority is required to access grant funds

# DOYLE DRIVE REPLACEMENT PROJECT



- ❖ Highest priority safety project in the state
  - Worst rated bridge in the state (seismic), 2 of 100 Federal rating
- ❖ Parkway design to replace Doyle Drive (broad consensus)
- ❖ \$810M project: \$605M committed in state & local funds
  - Urban Partnership program offers additional \$35M Federal funds
- ❖ Existing facility tolled to fill funding gap (~\$165M), manage demand

- ❖ Doyle Drive Value Pricing Program (1)
  - toll Doyle Drive to close funding gap and manage congestion
- ❖ Arterial management (2, 3)
  - SFgo; transit signal priority
- ❖ Smart parking (4)
  - variable pricing
  - real-time information on availability
- ❖ Integrated mobility account
  - TransLink, FasTrak, parking, road pricing
- ❖ Expansion of City telecommuting program



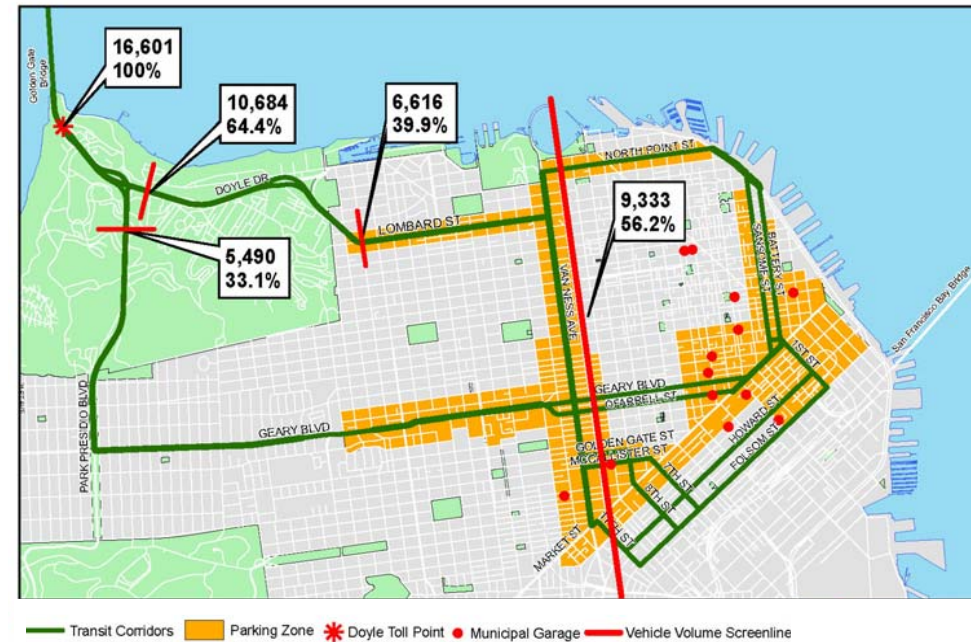


# DOYLE DRIVE VALUE PRICING PROGRAM



## Travel Patterns:

- ❖ Most trips destined for downtown
  - 120,000 daily
  - 58,000 inbound
  - 16,500 inbound during AM peak
- ❖ Most trips from North Bay
  - 85% during AM peak hours
  - 70% during off-peak hours



## Tolling Design:

- ❖ Preliminary toll studies: \$1-\$2/day could shift 10%-12% of traffic to off-peak or transit
- ❖ Updated toll study to be conducted pending CHAMP 4.0 model completion

*MAPS is a feasibility study;*

*UPA project is a demonstration project*

## ❖ UPA to demonstrate value:

- Close Doyle funding gap with self-help
- Manage peak period demand
- Showcase technology
- Concept of re-investing revenue in the Doyle/101 corridor
- Build public trust in government to deliver
  - Transparent public process
  - Public participation

❖ Monitoring and evaluation of Doyle program will help inform decision-making for potential area-pricing in SF

# THANK YOU!



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