Honorable Chair and Members
  of the Transportation Committee
City Hall
Torrance, California

Members of the Transportation Committee:

**SUBJECT: Determine course of action to be recommended to City Council on the
proposed Car2Go car sharing program**

RECOMMENDATION

Provide direction to City staff on recommendation to City Council regarding the proposed
Car2Go car sharing program.

BACKGROUND/ANALYSIS

A proposal from Daimler Motor Company was presented to the Torrance City Council on
November 20, 2012 on Car2Go, a car sharing program that is being promoted as a regional
transportation solution throughout several cities of the South Bay covering about forty square
miles. The program is a car rental service that allows members to rent a Smart car by the
minute in a defined home area without having to return the vehicle to the original point of rental.
Car2Go already operates in San Diego, Portland, Austin, Miami, Washington D.C., and Seattle.

The South Bay Cities Council of Governments (SBCCOG) is in support of the proposal for our
region as the SBCCOG has been studying travel patterns in the South Bay and what options
are available to address mobility concerns within the area and also limit environmental impacts.
So far the only South Bay city that has fully endorsed the proposal is the city of Gardena. The
cities of Hawthorne, Lawndale, Lomita, El Segundo, Manhattan Beach, Redondo Beach, and
Hermosa Beach are in various stages of consideration of Car2Go.

Although there are community benefits to such a car sharing program, City staff have several
concerns. They include:
  1. Associated costs, oversight, and enforcement associated with the program
  2. Anticipated complaints/inquiries from the public
  3. Public safety, liability
  4. How to handle similar businesses wishing to operate in Torrance
  5. Special parking areas

The other South Bay cities considering the proposal have similar concerns. Several are
customizing their agreements with Car2Go. Some of the cities are receiving compensation for
lost revenue from parking meters. Some are excluding special parking areas. With input from
the Council Transportation Committee and the public, staff would like direction on what course
of action to bring back to the full City Council.

Options to consider include:

1. Participation in the Car2Go South Bay Car Sharing program
2. Not participating in the Car2Go South Bay Car Sharing program
3. Participating in the Car2Go South Bay Car Sharing program with modifications

Respectfully submitted,

LeROY J. JACKSON
CITY MANAGER

By _____
Fran Fulton
Senior Management Associate

CONCUR:

_____
LeRoy J. Jackson
City Manager

/initials
Attachments:
   A. Car2Go Council Presentation
   B. Proposal from Car2Go

car2go

Overview for the City of Torrance

November 2012

CAR
2GO

car2go is Daimler's innovative personal mobility service

DAIMLER


car2go Leverages Daimler's Global Resources

- Proprietary car-sharing technology
- Daimler smart fortwo vehicles
- Global Corporate infrastructure

car2go Unique Capabilities

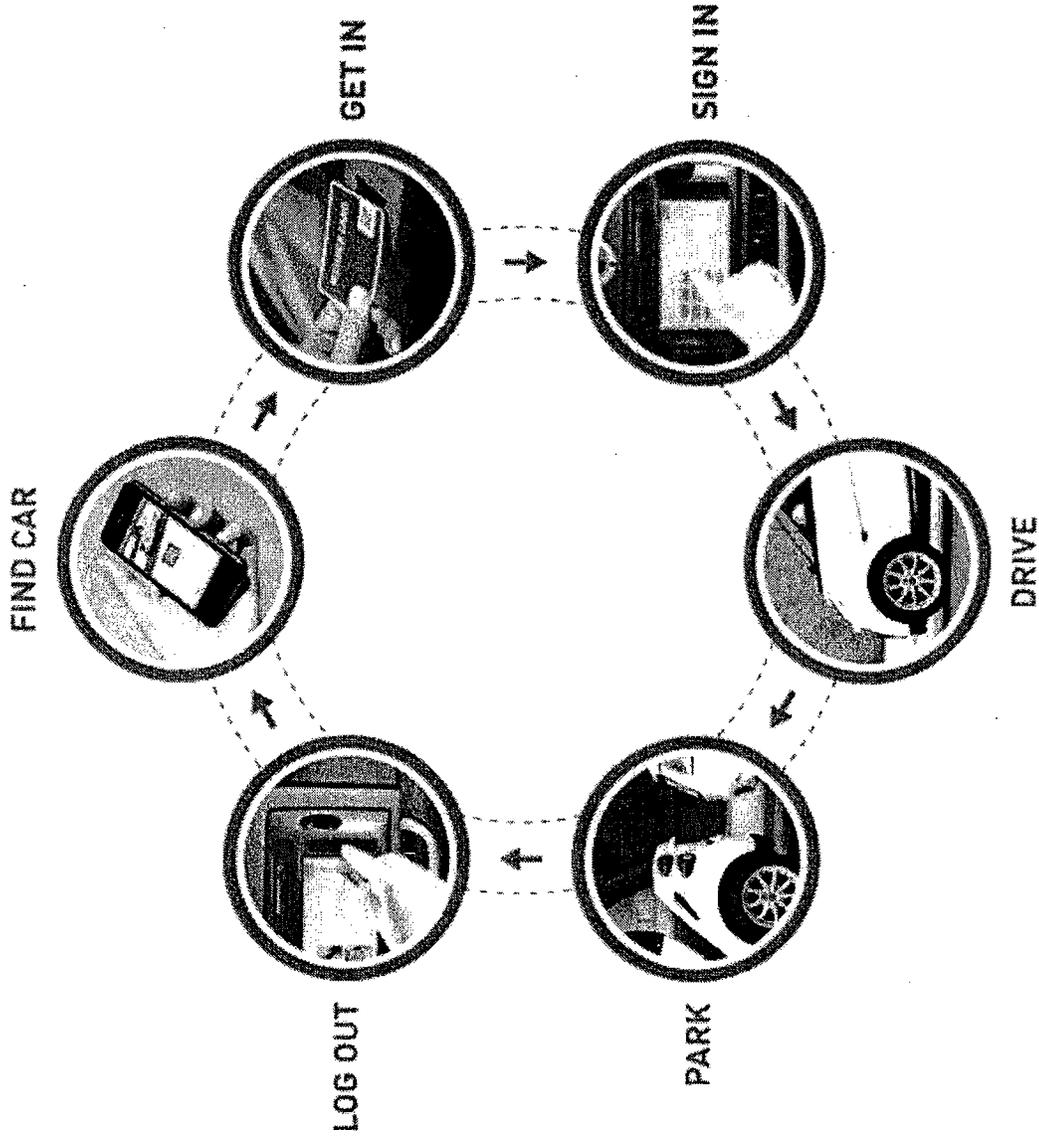car2go is the first fully automated, one-way, open-end, on-the-spot car sharing system:

- Large network of self service vehicles
- On-Demand Mobility – members can rent the cars on-the-spot without a reservation
- "Pay-as-you-drive" - Members are charged by the minute, with discounted rates for hourly & daily use
- All inclusive - Rental, Fuel, Insurance, Parking & Maintenance
- Easy, accessible, user friendly service
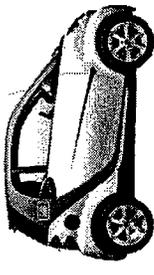
car2go OVERVIEW

1. **One time Registration –** Easily register on-line or in person at the car2go shop. Receive your membership packet in the mail.

2. **Find Car -** Pick up the car at a moment's notice without a reservation. Find cars via internet, telephone or mobile device.

3. **Get in –** Unlock the car2go using your car2go member card

4. **Sign in-** Get in the car and then enter your PIN to begin the rental.

5. **Drive off -** Start the car, then simply drive to the destination of your choice for as long as you want. Simply pay by minute, hour or day.

6. **Park -** Once you arrive at your destination, simply park the car2go on any legal on-street parking space or designated car2go parking space.

GET IN

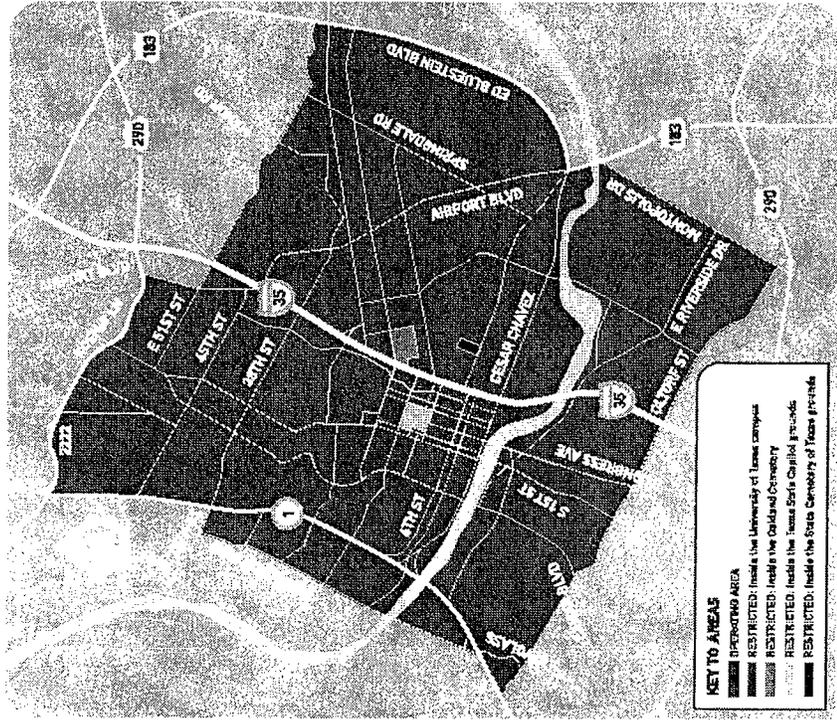SIGN IN

FIND CAR

DRIVE

LOG OUT

PARK

EXAMPLE OF A CAR2GO HOME AREA

Free-floating operating area – members can begin and end rentals anywhere within the operating area. They may drive outside the Home Area but not end rentals outside.
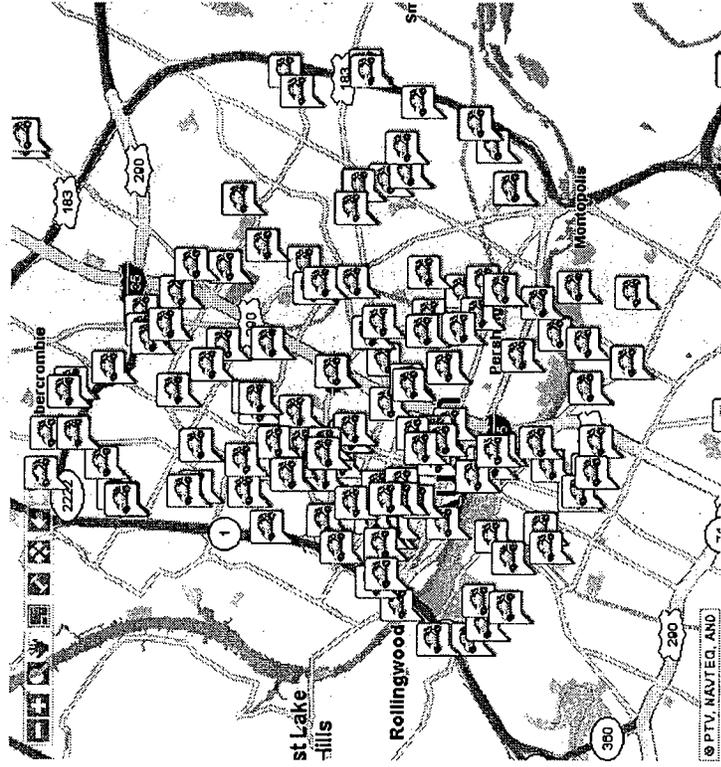
Approximately 30 square mile Home Area

Distribution of available cars within the Home Area
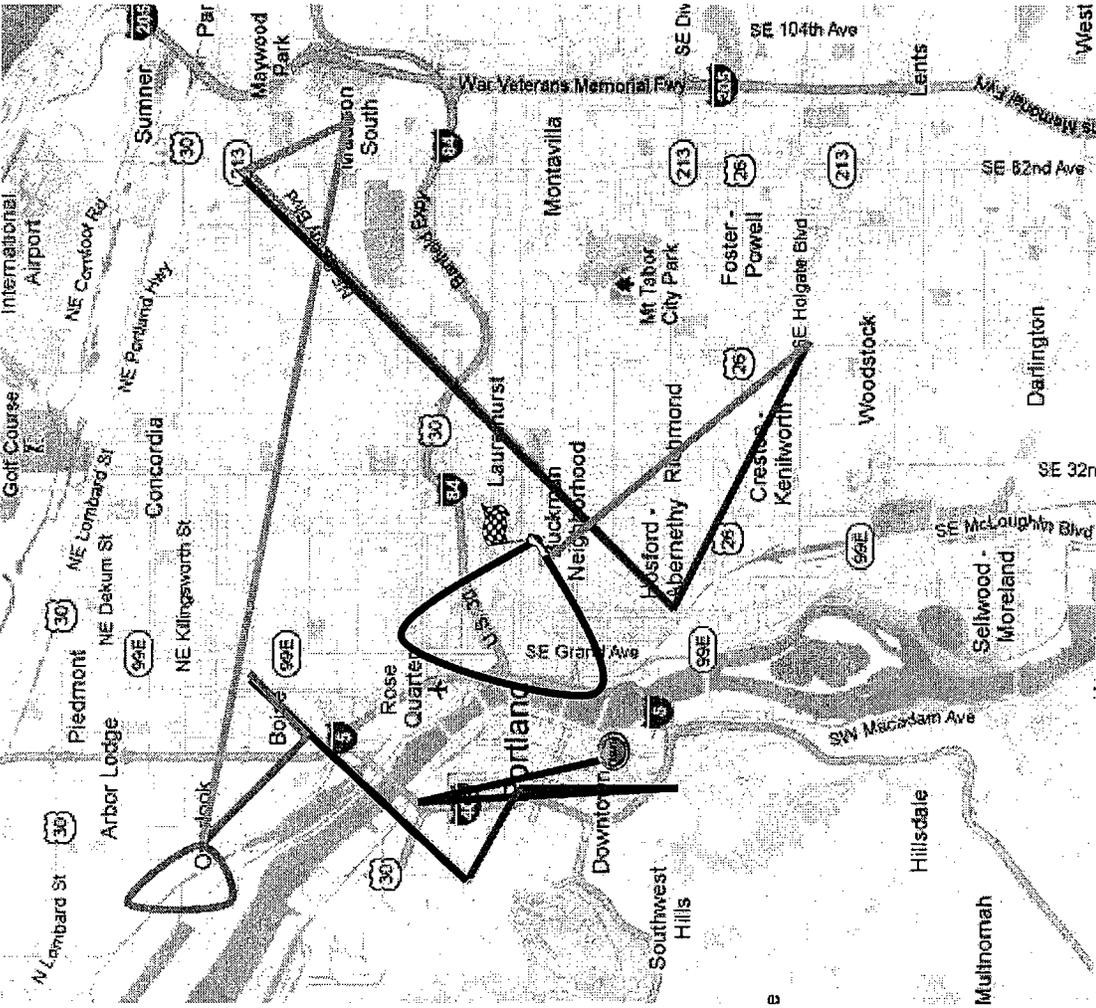

AUSTIN OPERATING AREA

AVAILABLE CAR2GO

Austin operating area map: Click here to view.

+++ currently 178 car2go available in Austin +++
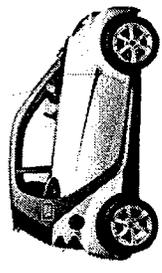
EXAMPLE OF A DAILY CAR2GO UTILIZATION

- 1. Member A, Three Point to Point trips: 7, 10, and 24 minutes; 2.5, 2.5, 3.7 miles

- 2. Member B, Point to Point Trip, 11 minutes, 1.2 miles

- 3. Member C, Point to Point Trip: 10 minutes; 3.1 miles

- 4. Member D, Two Point to Point and one Round Trip*: 7,10 and 24 minutes; 1.2, 2.5, and 3.7 miles

- 5. Member E, Two Point to Point Trips: 32 minutes and 1 hour 9 minutes; 10 and 7.5 miles

- 6. Member F, Two Point to Point Trips: 23 and 16 minutes; 6.2 and 3.1miles

- 7. Member F, Point to Point Trip, 27 minutes, 5 miles
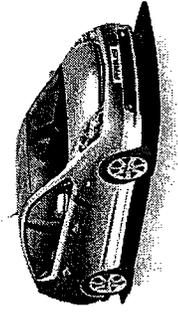
- 8. Member F, Round Trip*, 1 hour 24 minutes, 6.8 miles

* Only Start and End Destination know by car2go path of travel not tracked

car2go Overview – Walter Rosenkranz – Page 5

car2go vs TRADITIONAL CAR SHARING

car2go provides "ON DEMAND" transportation that is unlike other conventional car-sharing business models

FEATURE	CAR2GO	TRADITIONAL CAR-SHARING
ECO-FRIENDLY	✓	✓
ONE-WAY TRIPS	✓	
BILLING TO PER-MINUTE RATES	✓	
FLEXIBLE, OPEN-ENDED RENTALS	✓	
DEDICATED PARKING SPACES	✓	✓
FLEXIBLE PARKING SOLUTIONS FOR CUSTOMERS	✓	
ON-DEMAND RENTALS	✓	
ROUND TRIPS ONLY		✓
ADVANCED RESERVATIONS	✓	✓
SCHEDULED RETURN TIMES		✓

car2go Business Model

versus

Conventional Car-Sharing Business Model

Insurance, Parking, Maintenance, Fuel, and Mileage is ALL included in the rental rate

car2go CURRENT AND FUTURE MARKETS

car2go is currently operating in 8 cities in North America, 7 cities in Europe with continued expansion plans.

Global Impact:

5,000+ vehicles, 625 of which are electric

150,000+ members worldwide

75,000+ members in North America

Well over 3.0MM rentals and 12MM miles traveled.

North America

Austin, Texas: May 2010 (public launch)

Vancouver, BC: June 2011

San Diego, California: November 2011
North America's first large scale all electric-drive carsharing fleet.

Washington DC: March 2012

Portland, OR: March 2012

Toronto, ON: – June 2012

Calgary, AL – July 2012

Miami, FL – July 2012
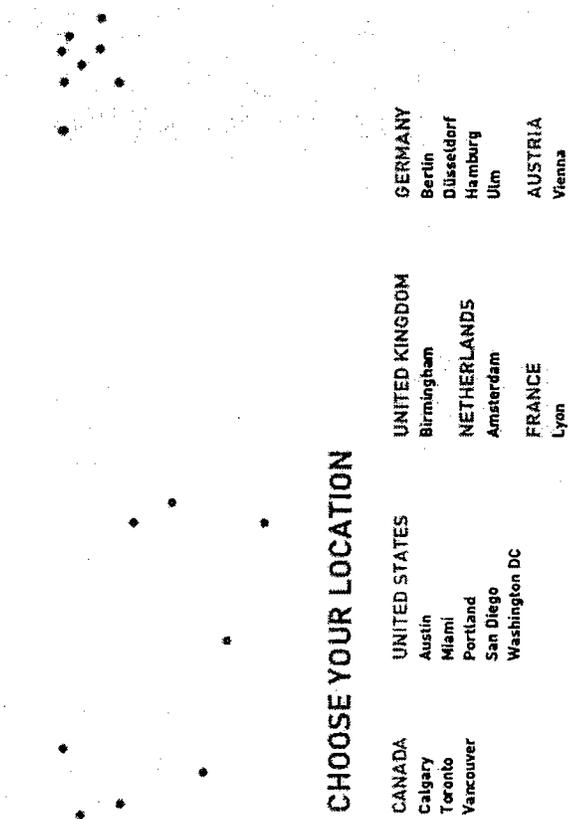
CHOOSE YOUR LOCATION

CANADA	UNITED STATES	UNITED KINGDOM	GERMANY
Calgary	Austin	Birmingham	Berlin
Toronto	Miami		Düsseldorf
Vancouver	Portland	NETHERLANDS	Hamburg
	San Diego	Amsterdam	Ulm
	Washington DC		
		FRANCE	AUSTRIA
		Lyon	Vienna

Europe

Germany: Ulm, Hamburg, Berlin, Dusseldorf

France: Lyon

Netherlands: Amsterdam

UK: Birmingham (Aug 2012)

SOUTH BAY CITIES

Primary and secondary research indicates a potential Home Area of approximately 40 square miles

— Potential South Bay Home Area —
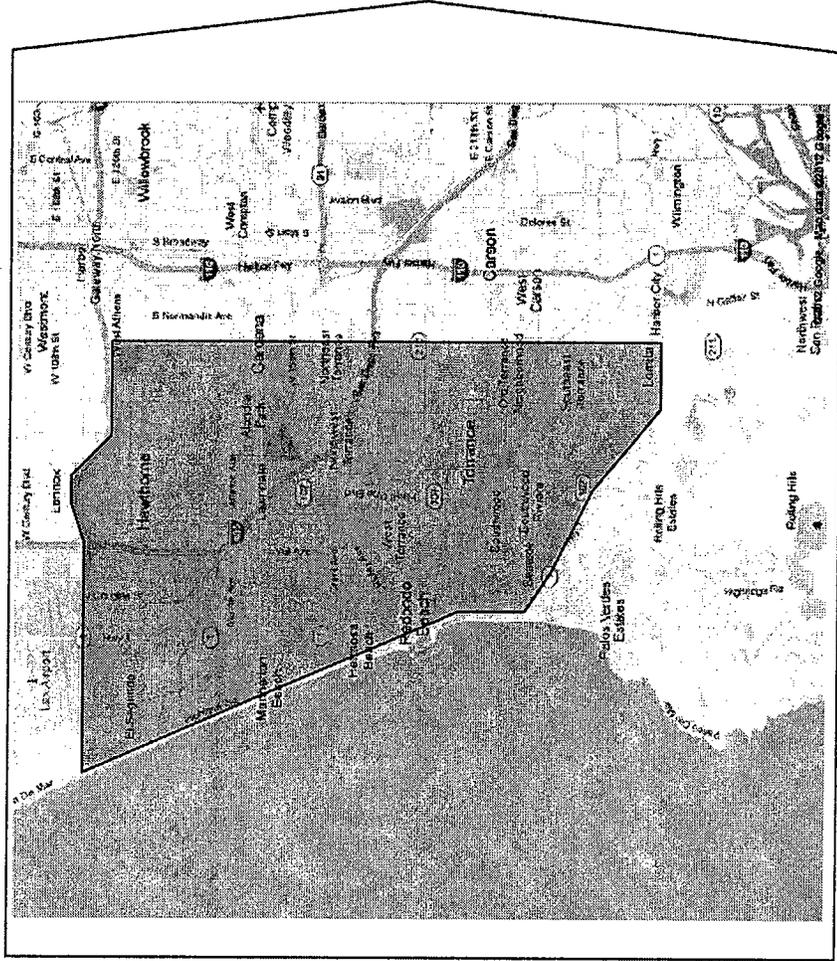
Borders:

- **Northern border:**
  - I105
- **Eastern border:**
  - Western Avenue
- **Southern border:**
  - Pacific Coast Highway
- **Western border:**
  - Coastline

Area:

- Approximately 35 Sq. Mi. (excluding prohibited areas)

Vehicles:

- 300-350
- Up to 10% Electric Drive

BENEFITS FOR SOUTH BAY CITIES

Congestion/Parking

car2go provides a flexible mobility solution while removing vehicles from City streets.

- "each carshare vehicle is estimated to take an average of 15 private vehicles off the road"
- "30 percent of households that joined (City CarShare) sold a car and others delayed purchasing one. Transit use, bicycling, and walking also increased among members."
- "Most studies suggest that carsharing typically results in an average net 40-60 percent reduction in per capita driving among Participants"
- "Replacing private automobiles with shared ones directly reduces demand for parking spaces."

Ease parking pressure by facilitating public transit. Car2go point-to-point rentals alleviate the concerns associated with the "last mile" of a commute.

Revenue

Additional parking revenue for permitting car2go vehicles for parking in the South Bay.

Tax revenues from rental car sales taxes for car2go rentals by consumers

Increased mobility and reduced congestion may increase traffic and revenues to local businesses.

Other

Employment opportunities to support car2go project directly from car2go and also through additional third party contracting.

"access to vehicles significantly increases employment and average wages for disadvantaged people entering the workforce"

Helps to reduce the carbon footprint and can be integrated into the environmental strategy of the City.

Quoted text from the SANDAG commissioned "On-Street Parking Carshare Demonstration Project FINAL REPORT" by IBI Group June 2009

CONTACTS

Walter Rosenkranz
Business Development
car2go N.A., LLC
(858) 752.7381
walter.rosenkranz@daimler.com

CAR
2GO

Parking Proposal for the City of Torrance

car2go

January 2, 2013

Proposed parking arrangement with the City of Torrance

Overview
car2go is a mobility concept from Daimler that redefines individual transportation in congested areas. Customers can rent smart fortwo vehicles by the minute anywhere within a defined Home Area. Vehicles can be located via cell phone or Internet, and rented on the spur of the moment. The vehicles can be used for one-way trips and do not have to be returned to the point of rental.

smart fortwo vehicles are placed throughout a city and can be rented by registered customers at any time, 24 hours a day. The customers' membership card gains them access to the vehicle and they may use the vehicle as long as required. There is no minimum or maximum rental time. Rental fees include fuel, insurance, parking and maintenance.

car2go was founded in Germany and has nine programs operating in Europe. car2go currently operates in the following cities in North America: Austin Texas, San Diego California, Washington DC, Portland Oregon, Miami Florida, Vancouver British Columbia, Calgary Alberta, and Toronto Ontario. Recently, a car2go program launched in the city of Seattle in late December 2012 to make it the ninth North American city to have access to the service. The San Diego operation is the first large-scale all electric-drive carshare program in North America.

car2go proposes to launch a carshare program that will service the Los Angeles South Bay communities including Torrance, Lawndale, Hawthorne, Lomita, Gardena, El Segundo, Manhattan Beach, Redondo Beach and Hermosa Beach. The launch would include approximately 300-350 conventionally powered smart fortwo vehicles and cover a Home Area of approximately 40 square miles.

car2go Benefits:

The car2go carsharing service can provide many valuable benefits to the South Bay communities. The following is just a brief recap of the advantages of carshare for the Cities. A summary table of fifteen academic studies of carshare from an article authored by Dr. Susan Shaheen from UC Berkeley is reproduced in the appendix as reference. car2go conducts periodic surveys and the results of these surveys will also be discussed.

Congestion reduction:

Studies have shown that carshare programs reduce the number of private ownership vehicles. It is estimated that for each carshare vehicle that is placed into service, 6-20 privately held cars are removed from the transportation network. Further, the studies reveal that between 15-30% of carshare members sell their personal vehicle with 25-71% avoiding a vehicle purchase. This is consistent with a car2go survey of members which identified that 82% of car2go members have reconsidered car ownership since using

car2go with 20% of respondents either very likely or somewhat likely to reduce the number of vehicles owned.

Frost and Sullivan, a leading market research firm, also report that carshare members drive 15-47% less than they had before becoming carshare members. 20% of car2go members report that they use their car less often than they had prior to joining the service.

Complements alternate modes of transportation:

Studies show that between 12-54% of carshare participants walk more and 13.5-54% ride transit more as a result of carshare. car2go surveys indicate that 35% of members usually utilize public transportation, 17% usually walk, 8% ride their bike, 13% use car2go and 23% use their own car. 67% of respondents subscribe to a transit pass for using public transit.

The unique one-way carshare model provides an extension of transit to truly solve the "first mile" and "last mile" challenge that can be a barrier to transit utilization. Members in residential areas that may not be served with convenient transit can drop the car at a transit station and complete their journey. Conversely, residents of the center city that usually drive their car to visit friends in the residential neighborhoods could take transit for the majority of the trip and just use car2go to reach their final destination.

Employment facilitator:

Some studies indicate that having access to a vehicle can increase the employment prospects for disadvantaged people. Without the up-front costs of car ownership, carsharing provides a better option than purchasing a vehicle. Having the flexibility of the point-to-point capability in conjunction with other modes of transportation including transit, walking and biking, carshare provides the benefits of car ownership without the burden and cost.

CO2 reduction:

The reduction of miles driven and the utilization of fuel efficient vehicles can result in the lowering of green house gas emissions in the operating area. Additionally, the potential incorporation of all electric-drive vehicles in the fleet further reduces emissions and provides the opportunity for mass trial of electric cars. The introduction of electric-drive vehicles to the car2go fleet is dependent on having access to widespread access to publicly available electric vehicle charging stations. As the EV charging infrastructure is developed in the South Bay, car2go may introduce a limited number of all electric-drive vehicles.

Home Area:

A Home Area is established which provides the members the boundaries from which they can begin and end rentals. This boundary is created by constructing a geo-fence utilizing

GPS coordinates which is inputted into our proprietary telematic system. Members are able to begin and end rentals within this boundary and also drive outside the boundary but must return to end the rental.

The Home Area is established to provide maximum usage of the vehicles. Factors that are taken into consideration when determining the Home Area include population density, demographics, and travel patterns. car2go conducted extensive market research of the Los Angeles region to evaluate the viability of a car2go service in the region. Travel patterns are evaluated through primary research surveys of residents to determine where they live and where they travel for work and recreational activities. Exhibit 1 displays an overview of the results of interviews with prospective members to understand where they live, work, go to school, and spend their leisure time.

Exhibit 1

Blue = Live
Green = Work
Yellow = School
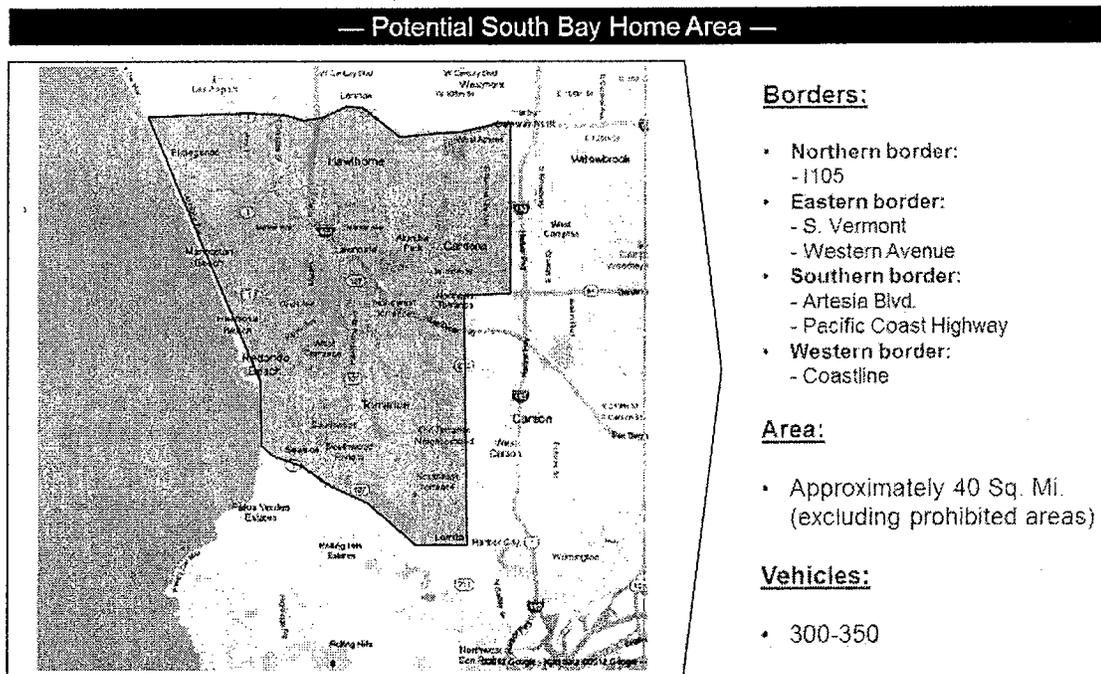Red = Leisure time activities

The research shows that residents are concentrated in the South Bay region and conduct most of their leisure time activities within the South Bay. In order to provide the greatest benefit and flexibility to the residents of the South Bay, the proposed Home Area (Exhibit 2) covers approximately 40 square miles of the region and serves approximately 400,000 residents.

Exhibit 2

— Potential South Bay Home Area —

Borders:

* Northern border:
  - I105
* Eastern border:
  - S. Vermont
  - Western Avenue
* Southern border:
  - Artesia Blvd.
  - Pacific Coast Highway
* Western border:
  - Coastline

Area:

* Approximately 40 Sq. Mi.
  (excluding prohibited areas)

Vehicles:

* 300-350

Parking

car2go requests that members have the flexibility to park the vehicle at a location that is most convenient for their needs. This free-floating vehicle concept is unique to car2go and is achieved through the use of proprietary technology. The point-to-point capability in combination with parking flexibility facilitates access to other modes of transportation by bridging the "first and last mile".

car2go desires to acquire a permit that will give car2go vehicles the ability to park at any legal, non-restricted on-street parking space including time limited zones and residential parking permit zones.

Members would be prohibited from ending rentals in lanes that convert from parking spaces to traffic lanes at any point during the day. Examples of this would be commuter lanes and bus lanes. Additionally, members would be prohibited from ending rentals in loading zones and time limited zones of one hour or less.

Residential Permit Zones

The car2go service is utilized by a wide variety of residents and we anticipate wide-spread adoption throughout the South Bay. Therefore, car2go desires to have access to park in Residential Permit Zones. This provides all residents in the Home Area access to the service and allows visitors to the residents in permitted areas a means to visit without worrying about parking concerns. Once the vehicle is released from the rental it becomes available for other residents or visitors to use.

Term:

car2go requests a three (3) year parking permit. This term will provide sufficient business continuity to justify the significant investments in capital and operating expense required to launch the service. Additionally, a three year term will provide a sufficient period of user and municipal experience with the program to evaluate the benefits to the City.

Relationship:

car2go will have management in the local market who can be reached directly to address any questions or concerns about the program. car2go values the relationship with local authorities and desires an open channel of communication to ensure the program meets the City's performance expectations.

The City of Torrance would be one of multiple cities that would be included in the car2go Home Area. Due to the multi-jurisdictional nature of where the program will be operating, car2go would support and participate in a working group with representatives of the cities within the Home Area to discuss program progress.

Appendix:

TABLE 1 Impacts of Carsharing (11–25)

Authors, Year	Number of Vehicles Removed From Transportation Network per Carsharing Vehicle	Participants Selling Personal Vehicle (%)	Participants Avoiding Vehicle Purchase (%)	VMT/VKT Change (%)	Average Monthly Cost Savings (%)	Participants Walking More (%)	Participants Taking Transit More (%)
U.S. Studies							
Short-term auto rental (San Francisco, CA) (11) — Walb and Loudon, 1986	15.4	—	43.1	—	—	—	—
Arlington, VA, carsharing pilot (12) — Price and Hamilton, 2005	—	25	68	-40	54	54	—
Arlington carsharing (13) — Price et al., 2006	—	29	71	-43	47	47	—
CarSharing Portland (Portland, OR) (14) — Katzev, 1999	—	26	53	—	154 U.S.	—	—
CarSharing Portland (15) — Cooper et al., 2000	—	23	25	-7.6	25.8	13.5	—
City CarShare (Year 1) (San Francisco) (16) — Cervero, 2003	—	2.5	60.0	-3%-58%*	—	—	—
City CarShare (Year 2) (17) — Cervero and Tsai, 2004	6.8	29.1	67.5	-47%-73%*	—	—	—
City CarShare (Year 4) (18) — Cervero et al., 2006	—	—	—	-67%/24%*	—	—	—
PhillyCarShare (Philadelphia, PA) (19) — Lane, 2005	10.8*	24.5	29.1	-42	172 U.S.	—	—
TCRP Report (national) (20) — Millard-Ball et al., 2005	—	—	—	-63	—	37	40
Zipcar (national) (21) — Zipcar, 2005	20	32	39	-79.8	435 U.S.	37	40
Canadian Studies							
AutoShare (Toronto, Canada) (22) — Autoshare, 2003	6-8	15	25	—	392 CA	—	—
AutoShare (Toronto) (23) — Autoshare, 2005	9-10	—	—	—	—	—	—
CommunAuto (Quebec Province, Canada) (24) — CommunAuto, 2000	9.1	21-29	55-61	—	—	—	—
CommunAuto (25) — CommunAuto, 2006	4.6*	24	53	—	492 CA	12-13	26-34

NOTE — denotes data not provided.
* Reflects existing members' reduction in vehicle miles traveled/vehicle kilometers traveled (VMT/VKT).
* Reflects only trial members' reduction in VMT/VKT.
* Reflects vehicles removed by members who gave up a car.