APPENDIX D3

Getting More with Less: Managing Residential Parking in Urban Developments with Carsharing and Unbundling

Best Practices

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Expect More. Experience Better.
Getting More with Less:
Managing Residential Parking in Urban Developments with Carsharing and Unbundling

BEST practices
EXECUTIVE SUMMARY

In recent years a number of cities have enacted policies and programs that encourage carsharing and unbundled parking to help create walkable, transit-supportive neighborhoods with minimized parking and traffic impacts while ensuring that new development is still marketable. Findings of a 2010 study that surveyed residents living in 13 buildings in downtown San Francisco suggest that the presence of both carsharing and unbundled parking in residential developments has a significant impact on vehicle ownership and that carshare members have lower levels of vehicle ownership and drive alone rates than non-carshare members. The survey also found that having carsharing onsite or nearby was a significant factor in the residential location decision for survey respondents living in households with no owned or leased cars available and that the presence of both carsharing and unbundled parking within a building affects residents’ decision to become carshare members.

From an operator’s perspective the determination of suitable locations and projects for carsharing is based on a number of factors. An ideal carshare location must have a mix of uses, high density, good pedestrian environment, low vehicle ownership rates, access to basic services and transit and an on-site parking ratio under 1:1. At the community level, carsharing can be successful once ample on-site and unbundled parking are defined as:

> Carsharing allows members to reserve cars on a short-term (hourly or daily) as-needed basis, paying only for the time they use the car and the mileage they drive. The operators of the carsharing program provide vehicle maintenance, repair, gas, and insurance.

> Unbundling separates parking costs from rents or housing sale prices, allowing residents to choose how much parking they want – and ensuring that non-car owners do not pay for parking they neither want nor need.

Carsharing provides members with access to a fleet of shared vehicles, making it easier for households to live without a car or a second vehicle. Developers can promote carsharing by providing spaces in their parking facilities, by providing free memberships to tenants, and by promoting the service to their staff and residents. Some developers provide carsharing on a voluntary basis as an amenity to tenants, while others may be required to do so in order to mitigate their transportation and parking impacts. San Francisco now mandates carsharing in large developments, while others such as Austin, Texas, and Vancouver (BC) reduce parking requirements for projects that include carsharing. Many other cities do so on a case-by-case basis.

Unbundling residential parking costs from the cost of housing can significantly reduce household vehicle ownership and parking demand. Unbundling can be implemented on a for-sale basis or on month-to-month lease basis, which provides even greater flexibility. With a lease, residents receive a monthly reminder of how much they are spending on a parking space, and have the option to forego this space if they no longer need it. San Francisco now requires unbundling parking in new residential developments with 10 or more units.

The benefits of both carsharing and unbundling in reducing parking demand and car use are well documented. Recent U.C. Berkeley studies found that between 24% and 29% of City CarShare members have sold a car in the past two years. These benefits have been confirmed by studies in cities such as Philadelphia and Chicago, as well as national surveys. And although research is scarcer, unbundling can reduce parking demand by as much as 30%.

In the last few years, San Francisco and neighboring cities have adopted the most ambitious policies in the world to promote both carsharing and unbundling. Northern California thus provides some of the most extensive experience with implementing innovative parking policies, and offers lessons for cities, developers, and carsharing organizations in the Bay Area and beyond.

The first half of this report profiles the experience of developments that have unbundled parking and provided carsharing for their residents in the Bay Area as well as reflections from planners and developers on what are the factors that influence implementing carsharing and unbundling. The second half of this report describes the findings from a complementary study that surveyed residential developments in San Francisco to determine how the presence of carsharing and unbundled parking affects vehicle ownership, commute mode, location choice, and parking choice.

moving from case-by-case to regulation

Many North American cities use carsharing and unbundling as mitigation measures in their development codes to encourage new developments. The City of San Francisco Planning Department has taken the inclusion of these two strategies to a whole new level by formalizing carsharing and unbundled parking regulations. In April 2008, Section 166 of the Planning Code was amended, stipulating that in newly constructed residential projects or in existing buildings converted to residential uses, if parking is provided, carshare parking spaces must be provided as follows:

- 0-49 units – 0 carshare spaces
- 50-200 units – 1 carshare space
- 201 or more units – 1, plus 1 for every 200 dwellings units over 200

Only certified carsharing organizations as defined in the Code may be used and parking spaces must be made available free of charge. The ratios were determined by an approximation as San Francisco was the first city to enact such requirements. The decision to require carsharing was motivated by several objectives: to create more space for carshare vehicles, reduce auto ownership, and reduce the space devoted to parking. Due to the recent implementation of carsharing regulations, it is too soon to speculate what impacts these requirements will have. Furthermore, there is currently no enforcement mechanism for ensuring that developers are complying with the requirements.

Concurrently, the City of San Francisco expanded its unbundling ordinances to encompass all new residential developments. Under Section 167 of the Planning Code, all off-street parking spaces available for residential uses in new or converted structures of ten dwelling units or more must be leased or sold separately from the rental or purchase fees for the life of the dwelling unit. Previously, unbundled parking was required on an ad-hoc basis. It is important to note that carsharing and unbundling legislation was adopted at the same time as parking requirements were lowered or eliminated. Both strategies are viewed as part of a larger, complementary package of transportation initiatives.

The success of unbundling requirements has been mixed. There have been significant problems with developers not adhering to the full intentions of the unbundled parking requirements, with roughly 80% of projects not presenting unbundled parking in a clear and understandable way to potential buyers, according to staff. This is partly due to a disconnect between the developer and property managers or whoever is marketing the project. As a result, the City has been debating potential changes, including the possibility of eliminating the option to sell parking and only allowing parking to be leased.
Unbundled Parking Program

The development was planned in conjunction with the Redevelopment Agency using City funding. Its location in a transit-rich, dense neighborhood as well as the inclusion of below market rate units helped with gaining approvals. As part of the approval process, the project was required to unbundle parking.

Parking is managed onsite by the Community Manager. The cost per parking space is different for residents versus non-residents. Up until Summer 2008, the monthly fee for non-residents was $275; however, other buildings in the area were charging less, so they reduced their rate to $250 in order to better compete with nearby buildings. Resident parking costs $200 a month. Market surveys are conducted every quarter to determine demand for parking and appropriate level of parking pricing. Since the parking agreements are offered month to month they can easily be modified to reflect any increases or decreases in parking prices.

The limit is one parking space per person on the lease. If a resident would like to lease an additional parking space, they are charged the non-resident rate. Approximately 125 residents have opted not to lease parking.

Outcomes and Recommendations

The Community Manager sees a number of different benefits from carsharing. Firstly, it is an amenity that can be marketed to potential residents, particularly people who are new to the area and do not have cars. Secondly, since the carsharing vehicles are open for use by non-residents, it brings people who may then become interested in renting an apartment to the building. Thirdly, carsharing gives the project an image of being environmentally friendly and energy efficient, as well as modern.

Overall, carsharing has been quite successful and the Community Manager would encourage other developers to include carsharing while recommending that the cars be located in a highly visible area. However, some prospective tenants have chosen not to rent in the building due to the lack of free parking, especially those who are new to San Francisco. Still, some people are more accepting of having to pay for parking when they see the going rate for parking spaces in the area.

Carsharing Program

Several of the architects involved in the design of this project recommended carsharing to the head of their firm as an important amenity and selling point to prospective buyers. They saw carsharing as a good fit given the demographics of the project and the project’s proximity to transit. Additionally, the extremely limited number of parking spaces meant that the majority of residents would not be able to house a vehicle onsite. The decision to participate in carsharing was based on these factors and was voluntary; codified City requirements for carsharing had not yet been adopted when the project was approved. City CarShare has worked with the same architecture firm before on other projects and they approached the firm to see if they would be interested in housing a carsharing vehicle at this location. City CarShare was also the only carsharing company that was willing to enter into an agreement with a project before construction was complete.

A non-exclusive agreement was made and City CarShare pays $150 a month for the parking space, though they do not typically pay for parking spaces in residential projects, the carsharing spaces. The Community Manager would encourage other developers to market rate at the time. Free parking may be offered until the building is fully occupied. A formal limit on the number of spaces per residents has not been set, but most likely it will be one space per tenant. The HOA will be responsible for managing the parking. Unlike many condominium projects, parking spaces will not be sold, which ensures that parking can be managed flexibly and unbundled during resale as well.

Outcomes and Recommendations

Benefits to the project for providing a carsharing vehicle include being able to offer prospective buyers an amenity that is easy to use and hassle free, according to the project coordinator. In the larger picture, inclusion of carsharing gives the project a sense of “greenness” and environmental friendliness, as well as a modern image and that they “are with the times”.

One of the major benefits of unbundling parking is that it gives the developer an opportunity to generate additional revenue and recoup and reduce a portion of parking costs, which are significant given the high cost of building parking. Additionally, the developer sees unbundled parking as a more flexible way to meet the needs of tenants, since only those who need parking will be required to pay for it.

Unbundling Parking Program

The decision to unbundled parking was not required by the City. However, it was a practical necessity given that there are only 5 parking spaces for 98 units. It is also standard practice for the developer. The total number of parking spaces was negotiated with the City of San Francisco in cooperation with the Redevelopment Agency, who was the developer’s partner on the project. Under the use category Single-Occupancy Room, the parking requirement is one space for every 20 units, which this project meets.

Both commercial and residential tenants will be given the opportunity to lease a parking space. The final price has not been set but will be around $200 per month according to market rate at the time. Free parking may be offered until the building is fully occupied. A formal limit on the number of spaces per residents has not been set, but most likely it will be one space per tenant. The HOA will be responsible for managing the parking. Unlike many condominium projects, parking spaces will not be sold, which ensures that parking can be managed flexibly and unbundled during resale as well.

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The development is near transit, which supports low-income families. The owner could replace company vehicles with a City CarShare key fob at the entrance to access the rest of the building from the garage. Since it is not possible for non-residents to own a car and that it is convenient and would recommend the program to other developers. The Mint Collection is comprised of 4 buildings. This review focuses on the two buildings at 410 and 418 Jessie Street, which house the project’s entire parking supply: 410 Jessie Street (52 for-sale units) and 418 Jessie Street (25 rental units). The pricing structure of City CarShare is more favorable than local, short trips, which the developer felt would be most useful to residents. The inclusion of carsharing was not required by the City of San Francisco. The parking space is located in a three-story mechanical lift with one carsharing space, one 12-car high mechanical lift and is marked with a City CarShare placard. Parking is covered under the rental lease agreement and there is no time limit on how long a tenant can have a parking space. Parking is managed by the Property Manager. From the Property Manager’s observations, some residents have two or three cars. This is a result of families who need them for work, thus carsharing is not an option for them. The Property Manager thinks that these families either park on-street or rent spaces in other buildings. The City CarShare vehicle seems to be occupied a good percentage of the time; however, the majority of users appear to be non-residents. Regardless, the Property Manager still feels that carsharing is a benefit for residents who do not own a car and that it is convenient and would recommend the program to other developers. Marketing is one area where the program could be improved. Ideally the Property Manager would better market the program, and have informational flyers to distribute, or City CarShare would come and give a presentation.

Unbundled Parking Program
Parking is first-come, first-served and there is a waiting list for those residents who would like a spot. The limit is one space per unit regardless of the number of bedrooms. Parking is covered under the rental lease agreement and there is no time limit on how long a tenant can have a parking space. Parking is managed by the Property Manager. From the Property Manager’s observations, some residents have two or three cars. This is a result of families who need them for work, thus carsharing is not an option for them. The Property Manager thinks that these families either park on-street or rent spaces in other buildings.

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Carsharing Program

As part of the conditions of approval process, the City of Oakland required the developer to provide one carsharing vehicle for a minimum of two years, to address a proposed parking ratio of one space per residential unit, which was significantly lower than City parking requirements. The City of Oakland also recommended that the developer use City CarShare as the service provider.

The development has an exclusive agreement with City CarShare that guarantees the operator revenue of $1,700 per month for two years. After the initial two-year agreement has expired the HOA will decide if it wants to maintain carsharing in the development. An open agreement means non-residents may use the carsharing vehicles and City CarShare is not charged for the parking space.

While carsharing has not worked well at this location, the developer would be willing to offer the service in future projects. It is also believed that there could be a more hands-on introduction to the service, or a computer kiosk in a main area that could be set up to introduce both residents and prospective buyers to City CarShare.

For fellow developers considering carsharing, the developer felt it was important to consider the demographics and size of the project, as these factors play a crucial role in determining if carsharing is appropriate and if it will be successful. He also noted that developers should carefully consider the length of the contract and an appropriate timeframe. While it may take a while for carsharing to gain in popularity, the developer may have to cover much of the cost over a significant period.

Outcomes and Recommendations

Overall, carsharing has not been successful at this location as only a few households regularly use the vehicle; thus, the developer has had to cover most of the monthly costs, resulting in an approximate annual cost of $20,000 to the developer. The developer thinks the lack of success is due largely to the demographics of the tenants, who are generally single households. There are very few couples and families with a need for two cars, one of which could be the carshare vehicle. Additionally, there is ample on-street parking in the area, and parking is provided at no charge to residents. Once the two-year period is over, the developer will no longer cover the cost of carsharing.

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Outcomes and Recommendations

During the approvals process for this project, Livable City, a non-profit advocacy organization, voiced its concerns to the Planning Commission regarding the bulk and height of the proposed garage. As a result, a condition of approval was made requiring the garage to be reduced from five to four stories and the inclusion of two carsharing vehicles in perpetuity.

The developer was familiar with City CarShare and chose to use the organization because of its local, non-profit nature and a desire to support local businesses. The developer has a non-exclusive agreement with City CarShare that guarantees the operator revenue of $1,700 per month for two years. After the initial two-year agreement has expired the HOA will decide if it wants to maintain carsharing in the development. An open agreement means non-residents may use the carsharing vehicles and City CarShare is not charged for the parking space. Carsharing is advertised in the developer’s marketing materials, such as the project’s website.

There are two carsharing vehicles on the ground floor with City CarShare placards marking the spaces. One of the vehicles is a smart car, which the developer donated to City CarShare for this location. He noted it has been very popular. The developer is open to increasing the number of carsharing vehicles at this project, particularly if the building’s tenants have high levels of usage.

Unbundled Parking Program

Similarly, unbundled parking was required as a condition of approval for the project by the Planning Department. The total number of spaces provided was the maximum number of spaces that could physically fit within the bulk and height restrictions set under the conditions of approval.

The developer has retained ownership of the garage. Residents who choose to purchase parking at a cost of $45,000 per space, are given a purchasing license or entitlement which then becomes linked to the apartment in case of resale. The parking is managed by a third party, and valet service is provided.

There is a limit of one parking space per unit, and the parking spaces have been priced such that 25 percent of residents will choose not to purchase parking, which is the ratio of parking spaces to units (for every four units there are three parking spaces).

Commercial tenants may use the public parking portion of the garage, which is first-come, first-served, with an hourly rate based on market rates in the area that are reviewed periodically.

Outcomes and Recommendations

While demand for residential parking spaces does not seem to have outstripped supply, the developer notes in his conversations with owners, that most own at least one car and if they do not have an onsite parking space they have purchased a parking space elsewhere in the area. The demographics of the typical buyer partly explains this as it is a more upscale affluent group who tend to own cars.

Carsharing has been a success at this location and the developer would recommend that other developers include carsharing. The developer believes that carsharing should be included in all projects as it is an important component of creating a transit-oriented lifestyle; one where people can use modes other than cars to get around and potentially walk to numerous destinations.

While the developer supports the idea of unbundling and would recommend it to other developers, he does not support the policy when used in conjunction with reduced parking requirements. In their experience, some households will rent cheaper parking spaces in the neighborhood as a result of unbundling.
In 2009 and 2010 a follow-up study funded by a grant from the Federal Highway Administration was undertaken to better understand the impacts of carsharing and unbundled parking on the behaviors and perceptions of residents living in buildings both with and without carshare vehicles and unbundled parking. Specifically the study sought to answer the following questions:

- Is vehicle ownership affected by whether residents own or rent their units and live in buildings with carshare vehicle access onsite?
- Does the presence of carsharing within a building affect the daily commute mode? Are residents who live in a building with carsharing more likely to commute via alternative modes of transportation than those residents who do not have a carshare vehicle in their building?
- Does unbundling the cost of parking from the cost of housing impact the residents’ decision to lease or purchase a unit in the development?
- Does the cost of parking impact the residents’ decision to lease or purchase a unit in the development? Is that decision impacted by the presence of a competitively priced parking garage or the availability of on-street parking nearby?
- Is the presence of a carshare vehicle in the building or nearby perceived as an amenity to tenants? To what degree, if any, does the perception differ between residents living in a building with unbundled parking versus those living in a building without unbundled parking?

To answer these questions a residential survey was undertaken. San Francisco was selected as the location for the study as it has been a model for establishing policies and requirements that encourage alternative modes of transportation and a lower rate of vehicle ownership. Survey participants were selected from four central San Francisco neighborhoods that have a high concentration of carshare Pods, regional and local transportation service, and new residential developments. Each potential survey property meets the following criteria:

- Minimum occupancy rate of 70 units
- Located within the South of Market, Rincon Hill, South Beach or Civic Center districts
- At least 1 MUNI, BART or Caltrain station available within 1/2 a mile (roughly 10-minute walk) from the site.

A total of 13 properties were selected to participate in the survey. Of those 13 sites, seven (54%) are control sites (sites without carsharing and either unbundled or bundled parking) and six (46%) are case sites (sites with carsharing and either unbundled or bundled parking).

A survey focused on the following topics was distributed to all residents in the survey sites:

- Vehicle ownership
- Parking characteristics
- Carsharing utilization
- Commute mode characteristics and public transit usage
- Demographic characteristics

Both a paper and online version of the survey were created. In order to ensure a greater number of survey responses, the survey period began after Labor Day weekend in September of 2009, as people tend to leave town for vacation throughout the summer, and officially closed at the end of January, 2010. A total of 298 responses were collected, of which 140 surveys were collected from case sites, for a response rate of 13%, and a total of 158 surveys were collected from control sites, for a response rate of 21%.

A comprehensive analysis was undertaken to determine if there are any statistically significant differences between residents who live in buildings with carsharing and unbundled parking and those who live in buildings without carsharing and unbundled parking, with respect to vehicle ownership, parking, carsharing usage, and commute mode. Listed below are general findings from the survey.
Vehicle Ownership

- The presence of both carsharing and unbundled parking within a building significantly reduces household vehicle ownership rates, with an average vehicle ownership rate of 0.76 vehicles per household for respondents who own a vehicle compared to a rate of 0.96 vehicles per household for respondents who do not.
- There is a statistically significant relationship between age and vehicle ownership, with younger respondents having an average vehicle ownership rate of 0.95 vehicles per household compared to respondents 55 years and older who have an average vehicle ownership rate of 1.26 vehicles per household.
- There is a statistically significant relationship between persons with a carshare membership and average vehicle ownership as compared to persons without a carshare membership. Respondents with carshare memberships had an average vehicle ownership rate of 0.47 compared to respondents without carshare membership who had an average vehicle ownership rate of 1.22.

Commute Mode

- The availability of a carshare vehicle within a given building does not significantly affect the share of residents who use alternative modes of transportation to work compared to buildings that do not have carsharing, with the exception of those persons commuting via foot. The number of case residents who walk to work is 19% greater than for the control sites (36% of case responses indicated that they walk to work compared to 29% of the control respondents).
- There is a statistically significant difference in commute mode between those persons with carshare membership versus those without in that 86% of persons with carshare memberships use non-auto modes to commute to work compared to 75% of persons without carshare memberships.
- More than 65% of respondents with carshare memberships take transit a few times a week or more compared to approximately 41% of respondents without carshare memberships. Based on the analysis there is a statistically significant difference in transit usage between those respondents with carshare memberships and those without.

Carshare Membership Rates

- Twenty-two percent of respondents stated that they decided to join a carshare organization upon moving to their current location due to the presence of carsharing nearby or in their building.
- Twenty percent of respondents feel the same way. Of those respondents without carshare memberships who live in a building without carsharing, 35% said they would like to join a carshare organization as compared to 65% of respondents with carshare memberships. Based on this analysis, having carsharing within a building does not significantly affect the decision to become carshare members.

Housing Location Decision

- The presence of carsharing onsite or nearby was a significant factor in the residential location decision for survey respondents living in households with no owned or leased cars available. Seventeen percent of respondents who do not own or lease a vehicle stated that the presence of carsharing had a large impact on their decision to move to their current location while only 5% of respondents with a vehicle felt the same way. Of those respondents without vehicles, 42% stated that the presence of carsharing had no impact, while 87% of respondents with vehicles felt the same way.
- Among residents with one or more vehicles, age had a significant impact on the decision to move into a building with carsharing. The results indicate that residents under the age of 55 were more likely to move to a location with carsharing than residents 55 years and older.

General Findings

- Utilizing 2000 U.S. Census data and excluding median income and tenure status, the demographic characteristics of residents surveyed at both case and control sites are not dramatically different from the census data.
- Seventy-seven percent of survey respondents households own one or more vehicles.
- Of the survey respondents who own at least one vehicle, 90% park their vehicle in their building's garage.
- For 73% of respondents who rent their unit, parking is provided free of charge or included in the rental price. Over 58% of respondents who purchased their unit had parking included in the purchase price of their unit.
- Survey respondents who lease parking pay an average of $175 a month and respondents who purchased parking when they bought their unit paid an average one-time fee of $37,500 per space. The national average price for a condominium parking space in 2009 was $45,400.
- Out of 298 participants surveyed, 27% (79 respondents) are members of a carshare organization. Of those respondents, 42% are City CarShare members, 47% are Zipcar members and 11% are members of both carshare organizations.

Figure 1  Average Household Vehicle Ownership Rates

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Average Vehicle Ownership</th>
<th>Statistically Significant</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age 18-54 (n=227)</td>
<td>0.95</td>
<td>Yes</td>
</tr>
<tr>
<td>Age 55 and over (n=68)</td>
<td>1.26</td>
<td></td>
</tr>
<tr>
<td>Renter (n=65)</td>
<td>0.84</td>
<td>No</td>
</tr>
<tr>
<td>Owner (n=229)</td>
<td>1.04</td>
<td></td>
</tr>
<tr>
<td>With Carsharing and Unbundled Parking (n=51)</td>
<td>0.76</td>
<td>Yes</td>
</tr>
<tr>
<td>Neither Carsharing nor Unbundled Parking (n=102)</td>
<td>1.03</td>
<td></td>
</tr>
<tr>
<td>Carsharing Only (n=89)</td>
<td>1.09</td>
<td>Yes</td>
</tr>
<tr>
<td>Neither Carsharing nor Unbundled Parking (n=102)</td>
<td>1.03</td>
<td></td>
</tr>
<tr>
<td>Unbundled Parking Only (n=96)</td>
<td>1.13</td>
<td></td>
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<tr>
<td>Neither Carsharing nor Unbundled Parking (n=102)</td>
<td>1.03</td>
<td></td>
</tr>
<tr>
<td>Carshare Members</td>
<td>0.47</td>
<td>Yes</td>
</tr>
<tr>
<td>Non-carshare Members</td>
<td>1.22</td>
<td></td>
</tr>
</tbody>
</table>

Figure 2  Commute Mode of All Respondents

Table 1 Average Household Vehicle Ownership Rates

best practices

For Developers

Consider whether exclusive-use carsharing makes sense. Reserving carsharing vehicles for residents and staff can help with security and ensure that vehicles are available, but it may be an expensive option if demand is low.

Provide for carsharing at the design stage. Locked doors between a garage and the main building or a gate between the carsharing Pod and the secured parking area. This gives non-residents access to carsharing vehicles while avoiding the need to give exclusive access to tenants, which comes with the cost of paying the carsharing provider for the exclusive access.

Maintain flexibility. It can be difficult to predict carsharing demand in advance; adjusting the number of vehicles based on usage may make more sense. If the developer and the carsharing provider decide to add more vehicles, the new cars should be located near the existing car(s) to support a user-friendly experience for members who already know where to find their carshare Pod. Planning ahead for this can pay-off.

Promote carsharing to residents. Advertisements in move-in packets and common areas, automatic memberships for tenants, and promotion by management staff with reminders every few months can help boost carsharing uptake and make residents aware of the amenity.

Adjust unbundled parking prices. Property managers can use regular market surveys of neighborhood facilities as a benchmark for parking prices. Or prices can simply be set high enough to restrict demand to the available supply.

Lease rather than sell unbundled parking. Month-to-month leases provide the flexibility to adjust parking rates based on demand and supply, give new residents the opportunity to obtain a parking space, and allow existing residents to give up a space they no longer need.

Communicate. Residents will often be unhappy about paying for parking, but may accept it if they understand that it is the norm in the neighborhood, or that rents or sale prices are lower as a result.

For Planners

Use carsharing and unbundling as mitigations or incentives. These policies can offer incentives for developers to provide less parking in a project. Or they can simply provide a way for a Planning Commission to approve a project where physical or economic constraints preclude adhering to minimum parking requirements.

Consider mandating carsharing and unbundling. Mandates avoid the need for a case-by-case approach, and may be particularly valuable where no minimum parking requirements exist and thus there is no mechanism to offer carsharing or unbundling in return for below-code parking provision.

Recognize variation in demand. If carsharing is required, demand will warrant fewer vehicles in less dense neighborhoods with more limited transit service.

Communicate benefits to developers. While developers are understandably less keen on a mandatory amenity, those that have implemented carsharing report numerous advantages, particularly the amenity provided to tenants. Similarly, unbundling has helped properties to manage demand.

Define & certify carsharing. Cities will need to carefully outline what qualifies as a carsharing service. To facilitate approval processes, cities can create a certification for carsharing based on an established definition. The certification award should require carsharing organizations to demonstrate their environmental benefits.

Enforce and monitor progress. San Francisco gains experience with its program, the need for monitoring and enforcement – particularly for unbundling – is becoming clear. Other cities should consider institutionalizing this from the outset.

Consider requiring lease-only rather than for-sale parking. Some developers have adhered to unbundling requirements according to the letter but not the spirit of the law, for example through providing opt-out provisions in the fine print of the contract. Sale of unbundled parking spaces, meanwhile, provides less flexibility for homeowners and property managers. Cities could avoid these challenges by defining unbundled parking on a lease-only basis.

San Francisco was the first city in North America to mandate both carsharing and unbundling in large developments. Together with other Bay Area cities that have required these policies on a case-by-case basis, the Bay Area provides a wealth of early experience and lessons for other communities.

Many developers, whose projects pre-dated the mandates or were too small to be subject to them, have implemented carsharing and unbundling on a voluntary basis. They see carsharing as a valuable amenity and marketing device, making units more attractive to tenants and purchasers and helping to compensate for reduced parking. This is confirmed in the resident survey as residents who do not own a vehicle were in fact influenced by the presence of a carshare vehicle onsite when they decided where to move. In developers’ eyes, carsharing also helps give projects a sense of environmental friendliness.

For projects seeking LEED certification, carsharing can provide an innovation point.

Unbundling can increase flexibility, as pricing can be increased or decreased to reflect current demand and market conditions – at least, when parking is leased rather than sold. In particular, when less than one space per unit is provided, it is an effective way to manage demand and allocate a limited number of spaces. It is also a source of revenue; unsurprisingly, however, paying for parking is attractive to car-sharing tenants.

Carsharing and unbundling can be considered as separate policies. However, as the findings of the resident survey show, there are also synergies to be realized. Unbundling can help create demand for carsharing, while carsharing can help compensate in residents’ minds for having to pay for parking. In contrast, free and abundant parking reduces the demand for carsharing. Households with both unbundled parking and carsharing available in the building have significantly lower vehicle ownership and are more likely to be carshare members compared to households in buildings without carsharing or unbundled parking.

Affordable housing presents a particular set of opportunities and challenges for both carsharing and unbundling. On the one hand, lower-income households tend to own fewer cars, and so are more likely to appreciate the choice of whether or not to pay for a parking space.

These households can also save money by giving up a lightly used car in exchange for carsharing. However, some affordable housing funding policies do not allow developers to provide less parking in a project, meaning that while parking can still be unbundled via a waiting list, the benefits of raising revenue and managing demand are lost.

The focus of this report is on carsharing and unbundled parking in urban, transit-rich neighborhoods. These types of communities were the early growth markets for carsharing, partly because of the density of potential districts and partly because carsharing members make most of their trips by transit, walking, and cycling.

Carsharing has subsequently expanded into more suburban settings, particularly in neighborhoods centered around subway or commuter rail stations. While there is less experience with unbundling and carsharing as part of free-standing transit-oriented developments in suburban areas, the same principles are likely to apply, particularly if the vehicle(s) can be used by employees during week-days and residents during weeknights and weekends.

Ultimately, however, carsharing and unbundling help a development succeed with less parking. They will not be successful in an isolated development with abundant parking and few other incentives or opportunities for residents to give up their cars. The case studies and findings of the resident survey demonstrate that where parking is limited and alternatives to the private auto exist, carsharing and unbundling can work to give residents choice, reduce household vehicle ownership, increase the number of residents who join carshare organizations, help property owners effectively manage their parking supply, and reduce traffic impacts to the wider community.

Further Reading


