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November 4, 2020

Michael Allen
Planning Manager
City of Culver City, Current Planning Division
9770 Culver Boulevard
Culver City, California 90232

RE: 3727 S. Robertson Mixed-Use Project Parking Sufficiency

Dear Michael,

A mixed-use project is proposed to be located at 3727 S. Robertson Boulevard in the City of Culver City (the Project). The Project proposes to provide 4 surface level parking spaces and 19 subterranean parking spaces in a 1 level parking structure beneath the building. This technical memorandum contains a review of the available transportation literature to determine if the proposed amount of parking is sufficient for the Project considering its uses and location.

## I. PROJECT DESCRIPTION

The proposed Project is located at 3727 S. Robertson Boulevard in the City of Culver City. The Project Site is located between Venice Boulevard and Washington Boulevard, and is within one-quarter mile walking distance of the Culver City Expo rail transit station (See Figure 1). Figure 2 contains the Project Site Plan. The Project consists of a 5 story 12-unit apartment building with 5,455 square feet of office and 3,886 square feet of retail/restaurant uses. The Project site currently contains 3,500 square feet of sound studio use, which will be demolished to accommodate the Project. Additionally, the Project will include a 10 foot setback along Robertson Boulevard. The provision of this setback will provide for a future 10 foot right-of-way dedication along the Project's Robertson Boulevard frontage to conform to the City's designation of this roadway as a Primary Artery and will match the 10 foot dedication provided by the properties along Robertson Boulevard, north of Hoke Avenue.

Parking for the Project will be provided at the ground level and in a parking garage underneath the Project building, containing a total of 23 parking spaces. As shown in Figure 2, four parking spaces will be located adjacent to the alley at the western boundary of the Project site, and each parking stall will provide direct access to/from that alley. Vehicular access to the basement level containing a total of 19 parking spaces is anticipated to be from a driveway located at the southwest corner of the Project site, which connects to the north-south alley along the western boundary of the Project site. The proposed parking supply would meet the requirements of the City of Culver City Municipal Code under Section 17.400.065 I a. 4 if "by resolution of the City Council based upon consideration of proximity to transit and/or a shared parking analysis, which demonstrates that such parking reduction will not negatively impact surrounding commercial or residential neighborhoods." This memorandum is to advise the City Council that the proximity to the Culver City Expo rain transit station and shared use nature of the Project will reduce the Project parking demand to the supply amount.

## II. REVIEW OF LITERATURE

The correlation of the amount and price of parking is the subject of a large amount of transportation literature. A literature review identified to following:

- A seminal document is "The High Cost of Free Parking" (2005) by Professor Donald Shoup from UCLA. Like the City of Culver City, other jurisdiction Municipal Codes allow for parking reductions to be granted based on TDM programs or similar demand reduction (See the City of Glendale's Municipal Code Section 30.32.070 Reduction of Parking Requirements).
- Another study, documented in the Institute of Transportation Engineers February 2013 article "Do Land Use, Transit, and Walk Access Affect Residential Parking Demand?" based on data collected in King County Washington (the Seattle area) concluded that "The variation in land use to multi-family residential parking utilization was clearly evident and statistically relevant.
- Numerous articles support reductions in parking requirements when transit proximity, TDM programs, and other factors reduce parking demand, including Parkageddon "How not to create traffic jams, pollution and urban sprawl.
- Caltrans Division of Research, Innovation and Systems Information in their paper Parking Management to Reduce Vehicle Miles Traveled (VMT), March 15, 2018" performed an exhaustive online search of the published studies available. The first study they included in their appendix was PARKING SPACES/ COMMUNITY PLACES – Finding the Balance through Smart Growth Solutions, US EPA, January 2006.

Below is a review of the most relevant section of PARKING SPACES/ COMMUNITY PLACES – Finding the Balance through Smart Growth Solutions, US EPA, January 2006. Pages 42 through 45 contain a section title "Context-Specific Requirements and TDM: Arlington County, Virginia" with studies that specifically answer the question:

- Has proximity to rail transit combined with Transportation Demand Management (TDM) programs been demonstrated to reduce parking demand level at or below the parking supply level proposed by the Project?

Arlington County Virginia has a range of parking requirement rates depending upon location of a project. The parking requirement varying by location is common and allowed for by many jurisdictions. The Arlington County, Virginia case is particularly relevant in that:

- Arlington County parking code contains specific rates for uses within one-quarter mile of Metro stations. The Project is within one-quarter mile of the Culver City Expo station.
- The Project amount of proposed parking supply would meet the Arlington County requirement;
- The EPA paper contains the results of follow-on studies assessing whether the parking provided in accordance with these parking rates met the actual demand, and
- The two study sites also provided TDM programs similar to the shared car and transit pass subsidy programs to be provided by the Project.

The relevant Arlington County parking requirement rates for developments within one-quarter mile of a Metro station are:

- Commercial Uses – one space per 1,000 square feet;
- Retail/service-commercial uses: (within 1,500 feet of a Metro station – no parking is required for the first 5,000 square feet of gross floor area; and

- Residential Uses – High Density residential: 1.08 spaces per unit (1:1 + visitor).

The following table shows these rates applied to the Project:

**Table 1**
**Arlington County Virginia Parking Requirement Rates**
**Applied to the Project**

| Use | Spaces | / | Unit | | * | Units | | | Parking Req. | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | |
| Office | 1 | / | 1,000 | sq. ft. | * | 5,455 | sq. ft. | = | 6 | Spaces |
| Retail/Restaurant | 0 | / | 5,000 | sq. ft. | * | 3,886 | sq. ft. | = | 0 | Spaces |
| Residential | 1.08 | / | 1 | Apt. | * | 12 | Apt. | = | 13 | Spaces |
| **Total** | | | | | | | | | 19 | Spaces |

As Table 1 shows, the Project subterranean parking would meet the Arlington County, Virginia code parking requirements.

The EPA paper determined whether the Arlington County Virginia parking requirement for a developments provided a sufficient parking supply. The analysis concluded:

> The Market Common in Clarendon is a mixed-use development with retail and restaurant space, 300 market rate apartment units on upper floors, and an adjacent office space. Located three blocks from two Metro stations along the Rosslyn-Ballston corridor, and in close proximity to dense employment and retail, the area has a variety of uses and urban form that supports walking, transit and biking as well as driving and parking. … Studies of parking use at Market Common indicate that up to 20 percent of available parking remains unused at peak times. The developer and county agreed to count that surplus parking towards requirements at future phases of this development

A development at 1801 North Lynn Street was also provided as an example, but parking utilization studies were not conducted. The discussion in the EPA report on this location focused on the cost savings from not requiring and not building excess parking. While no insufficiencies in the amount of parking at the completed project were reported, parking utilization studies were not included for the site1801 North Lynn Street.

The EPA report section on this Arlington County reduced parting requirement program did conclude that:

> Arlington has succeeded in promoting high-density, mixed-use developments with reduced parking in its Metrorail corridors. This kind of design promotes walk and bike trips as people can go from home to work and shopping in very short distances. Urban design in both projects pay close attention to pedestrian comfort, by providing useable public space, circulation paths, attractive landscaping, and engaging street-level architecture.

Other standard parking demand estimation manuals were reviewed including:

- Parting Generation Manual, 5th Edition, Institute of Transportation Engineers (ITE), January 2019. and
- Shared Parking, 3rd Edition, Urban Land Institute (ULI), 2020.

The parking demand estimates based on these manuals did not account for specific site information. For example, the ITE Trip Generation Manual has lower observed demands for multi-family units with dense multi-use urban areas with ½ mile of transit rail (0.71 per unit), but did not include data for the effect of distance to transit rail for offices, retail or restaurants.

ULI Shared Parking in Step 5: Adjust Ratios for Modal Split and Auto Occupancy section states:

> All the parking ratios recommended in this book are intended to reflect conditions in suburban and smaller city settings with little or no transit free or inexpensive parking, and minimal employee ridesharing.

The standard transportation literature does include the concept of shared parking. Shared parking applies to the Project since the Project is mixed-use. The ITE Manual indicates that residential parking demand is highest from midnight to 4 am, office parking demand is highest on weekdays at 10 AM to noon, and retail parking demand is highest on Saturday at 2 PM. Thus shared parking is an important factor for the Project, as well as for the success of the reduced parking supply requirement in Arlington County, Virginia.

## III. SUMMARY

Based on an extensive literature review, the most salient analysis was reported by the US EPA in PARKING SPACES/ COMMUNITY PLACES – Finding the Balance through Smart Growth Solutions, US EPA, January 2006. The data I the EPA report finds that given the location within one-quarter mile of a rail transit, implementation of an aggressive TDM program, and a mix of uses, the Project parking will be sufficient to meet actual demand. The parking supply will not be excessive and encourage use of automobiles instead of transit and other alternative modes that are available at the Project site.

Sincerely,
Crain & Associates

George Rhyner, PE
Transportation Engineer
TE 2143, CE 47763

GR
C22702
Attachments

# FIGURES

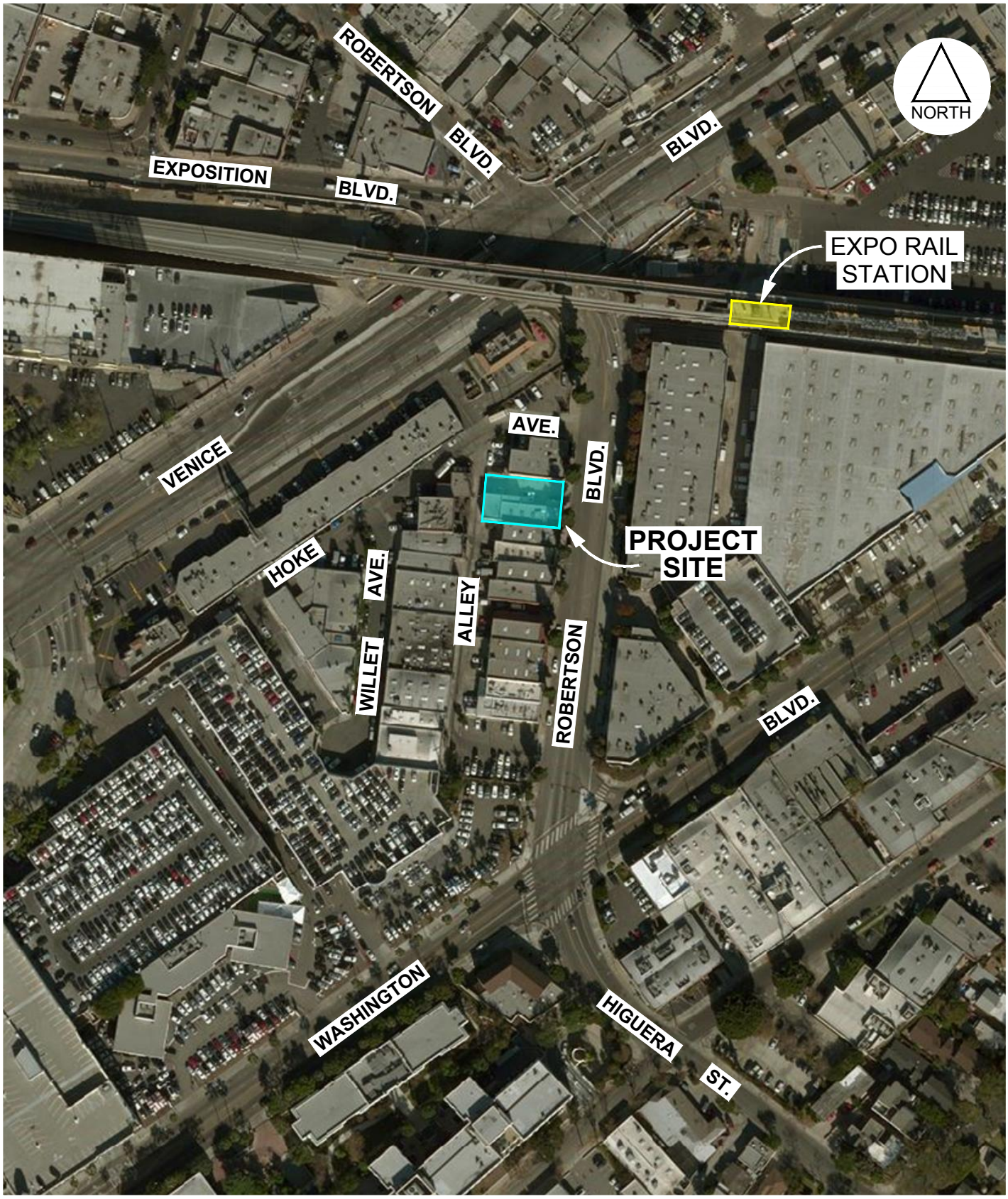


FIGURE 1

10/28/2020

FN: Robertson(3727)MixedUseCulverCity/SITE-VICINITY STATION

SITE VICINITY & CULVER CITY EXPO RAIL STATION
LOCATION MAP

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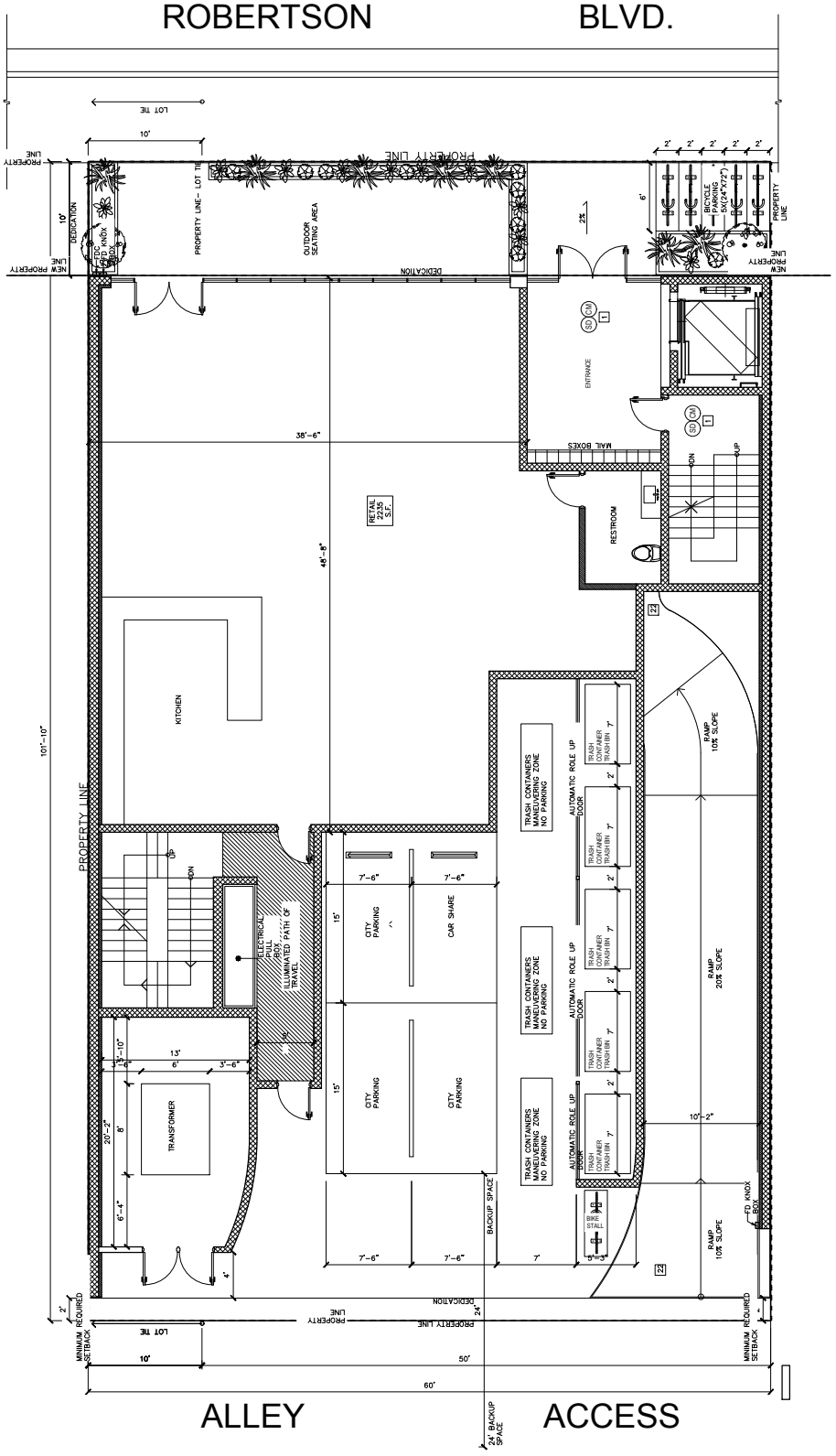


FIGURE 2

11/4/2020

ROBERTSON(3727)MIXEDUSE\SITE PLAN

PROJECT SITE PLAN

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**APPENDIX**
**Referenced Pages From**
**PARKING SPACES/ COMMUNITY PLACE**
**Finding the Balance through Smart Growth Solutions**
**US EPA, January 2006**

# Parking Spaces / Community Places

## Finding the Balance through Smart Growth Solutions


# Parking Spaces / Community Places

## Finding the Balance through Smart Growth Solutions

**Development, Community, and Environment Division (1807T)**
**U.S. Environmental Protection Agency**
**Washington, DC 20460**

**EPA 231-K-06-001**
**January 2006**

forming the soft Portland housing market in recent months. The developments have provided more than 80 new affordable homes. In addition, charging for parking separately from rent benefits households who do not have cars—particularly low-income families. Infill housing also increases the city's tax base.

## Context-Specific Requirements and TDM: Arlington County, Virginia

Arlington County is an urban area of about 26 square miles directly across the Potomac River from Washington, DC. Arlington County has adopted countywide development standards and guidelines, including lower parking ratios, to support future growth of high-density commercial and residential development around Metrorail stations in their two corridors—the Rosslyn-Ballston Corridor and the Jefferson Davis Corridor. Two specific projects are profiled here—a high-density residential development and a commercial development. Both have used the county's context-specific parking requirements and travel demand management program to better match parking supply with demand, making resources available for other community benefits.

**Context-Specific Requirements**
***Arlington, Virginia***

Commercial Uses:
- Commercial Office Zoning area outside of station areas: one space per 530 square feet.
- Commercial Redevelopment Zone (along Metro Corridor): one space per 580 square feet.
- Rosslyn-Ballston Metro Corridor Development and developments within one-quarter mile of a Metro station: one space per 1,000 square feet.

Retail Uses:
- For retail and service-commercial uses within 1,500 feet of a Metro station, no parking is required for the first 5,000 square feet of gross floor area.
- Any square footage above that has the same parking requirements as commercial in the area (either 1:580 square feet or 1:1,000 square feet, depending on its location in the corridor).

Residential Uses:
- High-density residential: 1.08 spaces per unit (1:1 + visitor).
- Townhouses: 2.2 per unit (2:1 + visitor).
- Single family homes: one space per house. This ratio assumes space in a driveway or on the street.

Arlington County dictates minimum parking requirements based primarily on distance from Metro stations. Parking requirements for commercial development are particularly transit-sensitive, with the lowest ratios for properties closest to Metro stations. According to Richard Best from the county Public Works Planning Division, if a development is within one-quarter mile of a Metro station, the county is open to allowing development with no new on-site parking, although this is not specifically written in the code.

Every project that goes through the site plan process for development along Metro corridors is required to have a transportation plan, which varies depending on density and use. Further reductions in minimum parking requirements, beyond the location- and use-specific standards, are granted for projects that include robust transportation choices, such as free or discounted transit passes for employees, other transit subsidies, ridesharing, and information on transit.

While not written into code, Arlington also enforces urban design criteria in parking construction. All parking is encouraged to be below ground, or if at surface level, it must be in a structure that is wrapped with occupiable ground floor space, in order to

reduce the impact of the parking on the walkability of the street. There are no codes dictating such design, but a site-plan review process strongly encourages it.

*Courtesy of McCaffery Interests*

## The Market Common

The Market Common in Clarendon is a mixed-use development with retail and restaurant space, 300 market-rate apartment units on upper floors, and adjacent office space. Located three blocks from two Metro stations along the Rosslyn-Ballston corridor, and in close proximity to dense employment and retail, the area has a variety of uses and urban form that supports walking, transit, and biking as well as driving and parking. Realizing that patrons of retail establishments would be using the parking during the day while residents would mainly need parking at night, developers of the Market Common devised a shared parking strategy.

*Courtesy of McCaffery Interests*

Under typical suburban parking requirements, the development would have required over 2,000 parking spaces.Under the Arlington County Code, the project would have required 1,504 spaces for the retail, housing, and office space. But by using a shared parking strategy, the development was able to reduce the requirement by 25 percent—to 1,160 spaces. The Market Common is the first recent development approved in the county with no assigned spaces for residential units—all spaces are equally available for all uses.

Parking demand is mitigated through several strategies:

- Parking costs are unbundled from rent for residents: $25 per month for the first car, $75 to $100 per month for the second;
- Daily parking is variable for other users, with rates of $1 to $4 per hour, with higher rates for longer stays;
- Bicycle parking reduces demand, as does proximity to transit.

Perhaps the parking could have been reduced even more and still met demand. Studies of parking use at Market Common indicate that up to 20 percent of available parking remains unused at peak times. The developer and county agreed to count that surplus parking toward requirements at future phases of this development.

### The Market Common

Profile:
- 225,000 square feet of retail and restaurant use
- 300 market-rate apartment units
- Parking: 25 percent reduction from county code

Strategies:
- Shared parking
- Parking costs separated from rents
- Transit and bicycle facilities

Benefits:
- Fewer required spaced reduced development costs by an estimated $16 million
- Parking paid for only by those who use it

## 1801 North Lynn Street

The 1801 North Lynn Street development is a new commercial building in the Rosslyn Metrorail station area, zoned for parking requirements of one space per 1,000 square feet, dependent upon the choices available to travelers. The zoning in this area permits increases in density and height when the County Board finds that the development offers important community benefits. The 1801 North Lynn Street development has 347,295 square feet of office space, 6,065 square feet of retail, and 386 parking spaces. At typical suburban parking ratios, that amount of development would have been accompanied by roughly three times as many parking spaces. Transportation Demand Management strategies allowed parking to be reduced to one space per 1,000 square feet ratio. The transportation program included the following elements:

1801 North Lynn Street

Profile:
- Office building with street-level retail
- 348,000 square feet of office space
- 6,000 square feet of retail space
- 386 parking spaces, one-third of typical requirements

Strategies:
- Extensive TDM program including fare subsidies
- Bicycle, pedestrian, and transit facilities

Benefits:
- Employees have a range of commuting choices
- Eliminating unnecessary parking helped make project financially feasible
- Increased tax base from new commercial activity

- Full-time, on-site Employee Transportation Coordinator to manage the program;
- Financial contribution to the Rosslyn Commuter Store;
- Transit fare subsidies for employees;
- Implementation of several ridesharing and parking strategies, including promoting ridesharing, helping commuters find rides, and subsidizing parking for carpools and off-peak commuting; and
- Bike facilities and showers to encourage bicycle commuting.

For workers in this building, the discounted Metro fare, along with walking and biking access to many residential neighborhoods, provides real choices in how to get to work. For shoppers at its retail establishments, newly available on-street parking in front of the stores provides a better option than existed before. The county gets an increased tax base and the vitality of mixed-use development and street-level retail in an area that in the past has not enjoyed off-peak activity.

Financial benefits to the developers of the two Arlington County projects are obvious -- reduced parking requirements sharply reduce construction costs, which in Arlington can mean upwards of $15,000 per space for structured parking, and up to $25,000 or more for below-grade spaces. Building less parking is a major part of making the projects financially feasible, in terms of balancing land costs, construction costs, revenue, and

lending. The Market Commons project, for example, saved $16 million from the 400 forgone parking spaces, without which it would not have been a feasible project.

Arlington has succeeded in promoting high-density, mixed-use developments with reduced parking in its Metrorail corridors. This kind of design promotes walk and bike trips as people can go from home to work and shopping in very short distances. Urban design in both projects pays close attention to pedestrian comfort, by providing usable public space, circulation paths, attractive landscaping, and engaging street-level architecture.

## Transportation Management for Mixed-Use Development: Santa Clara, California NASA Research Park

The NASA Ames Research Center (ARC) is a 1,500-acre site of federally owned land that lies between the southwestern edge of the San Francisco Bay and Silicon Valley, in Santa Clara County, California. Part of the site includes Moffet field, a decommissioned military site. Years of planning and community input led to an award-winning plan for a mixed-use development including an emphasis on research and technology firms; Internet-search giant Google recently announced it would build a major campus at the site. Design and construction will continue through at least 2014.

The majority of redevelopment on NASA's land will occur in the NASA Research Park (NRP), a 213-acre parcel on the southwest part of the site. Plans for development include the restoration of existing historical buildings, as well as adding nearly two million square feet of educational, office, research and development, museum, conference center, housing, and retail space. Also being developed as part of the project is 28 acres of a 95-acre parcel on the north side of the site called "The Bay View." This area is slated for predominantly housing uses, in addition to supporting retail, childcare, and other services. The remainder of Bay View will remain as open space and natural habitat.

Because the NASA land is federally owned, it is exempt from city or county codes that dictate parking requirements, as well as other development restrictions. Despite the lack of restrictions, the NRP project sought from the beginning to reduce the impact of traffic on surrounding streets and neighborhoods—with the goal of keeping driving at least 32 percent below the typical rates by Santa Clara County residents.

Had the site been developed using typical minimum parking ratios, it would have needed 7,542 parking spaces. Instead, the TDM plan calls for 5,200 spaces, with parking ratios determined by the actual number of people expected to be on-site.