

FEHR & PEERS

MEMORANDUM

Date: March 27, 2012

To: Mark Hoffheimer, Perkins + Will

From: Jane Bierstedt and Alex Sweet, Fehr & Peers

Subject: *Cupertino Civic Center Master Plan Parking Analysis*

SJ12-1334

The Cupertino Civic Center contains City Hall, Community Hall, Cupertino Library, and Library Field. As part of the planning for the Civic Center Master Plan (Master Plan), a parking analysis was conducted to identify the parking issues and provide recommendations for parking improvement solutions, including parking supply increases, parking demand decreases, and parking management strategies.

PROJECT BACKGROUND

The Cupertino Civic Center is home to the Cupertino City Hall, Community Hall, Public Library, and Library Field, a recreational playing field, as shown on **Figure 1**. The shared parking lot provides parking for all of the Civic Center's employees, visitors, and city vehicles. The three uses employ a total of approximately 107 employees: 75 at City Hall, 2 at the Community Hall, and 30 at the Library. The City also uses the parking lot to store 16 city vehicles. A commute survey conducted by the City in 2005 indicated that 90 percent of City employees drive alone to work.

The Community Hall and Library hold daily, weekly, and monthly events and programming that attract thousands of visitors per day. Recent visitor data indicates the library attracts anywhere from 1,600 visitors on a typical Friday to 2,656 visitors on a typical Tuesday. Saturdays are the busiest days at the library, with 3,315 visitors. The Community Hall attracted 16,790 visitors in the 2010-2011 fiscal year, which averages to about 67 visitors per weekday.

The result is a parking demand at the Civic Center that exceeds the existing parking lot supply of 224 spaces on most weekday afternoons. Many employees and visitors report having to circle the parking lot several times before a parking space becomes available. This can be inefficient for employees and a deterrent to the visitors who rely on the Civic Center's programming and services. The 104 on-street parking spaces that line the perimeter of the Civic Center can help meet the existing demand.



EXISTING CONDITIONS

The following section describes the existing transportation conditions surrounding Civic Center and identifies the vehicle and bicycle parking available at the parking lot and on nearby streets. Existing transit and bicycle facilities can be seen on **Figure 2**.

Transit Service

Three Santa Clara Valley Transportation Authority (VTA) bus routes circulate near the Civic Center. VTA bus Routes 53 and 55 run along DeAnza Boulevard. VTA Route 55 has stops at DeAnza Boulevard / Pacifica Drive and DeAnza Boulevard / Rodrigues Avenue. VTA bus Route 23 runs along Stevens Creek Boulevard.

Bicycle Facilities

On-street bicycle lanes exist on DeAnza Boulevard, Stevens Creek Boulevard, and Blaney Avenue. Rodrigues Avenue, which runs along the north side of the Civic Center, is a designated bicycle route. An on-street bicycle lane is proposed for McClellan Road, and a bicycle route is proposed for Torre Avenue.

Vehicle Parking

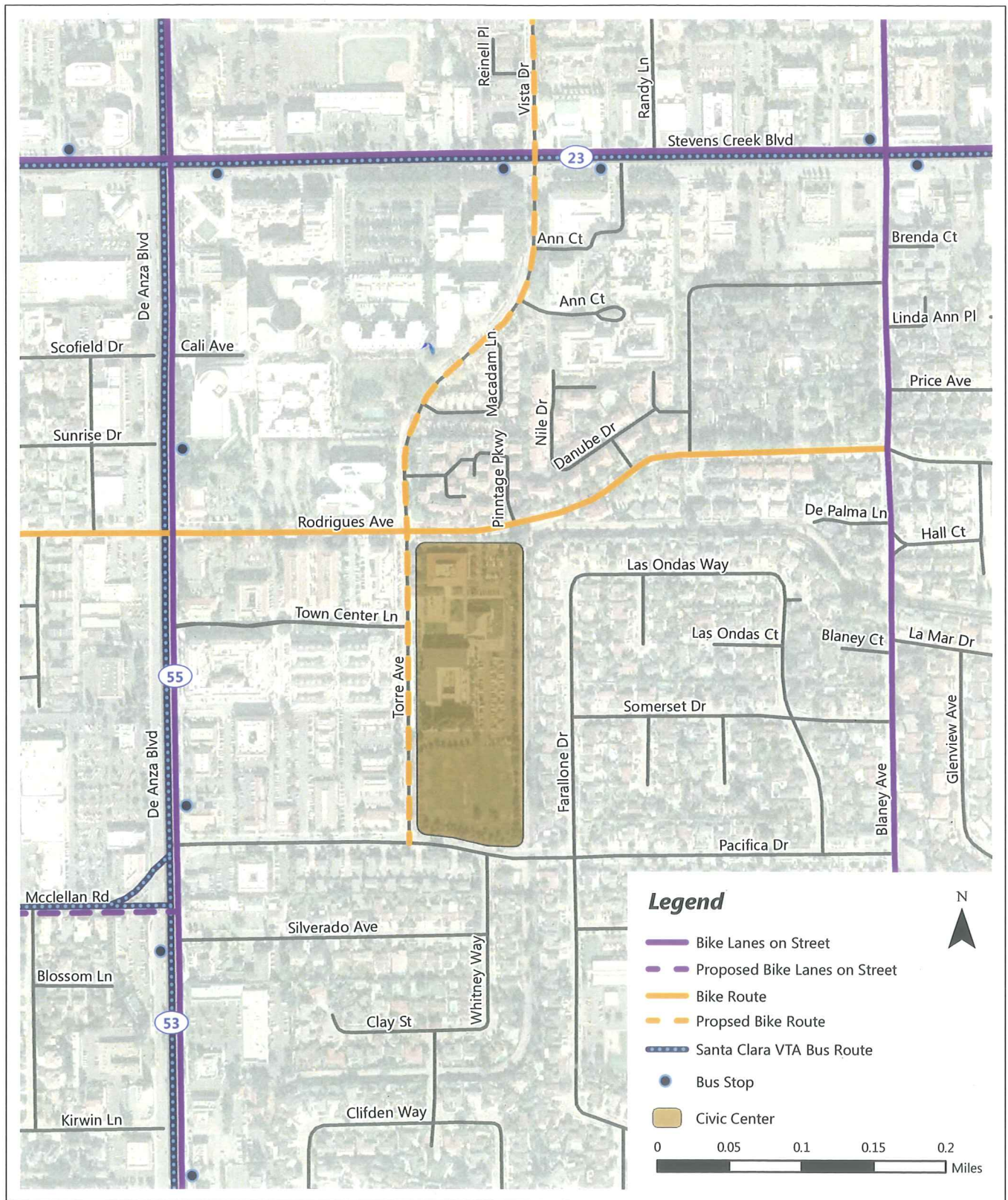
This section identifies the vehicle parking available at the Civic Center parking lot and on streets bordering the Civic Center. Existing parking can be seen in **Figure 3**.

The Civic Center currently provides 224 parking spaces in the shared surface parking lot. The parking lot has seven (7) ADA spaces: two (2) next to City Hall and five (5) next to the Library. There are four (4) 4-minute short-term parking spaces next to the library entrance. Two (2) electric-vehicle (EV) parking stations are provided on Rodrigues Avenue, just east of the Civic Center driveway.

A total of 104 on-street parking spaces are provided on select parts of the streets adjacent to the Civic Center. There are 10 delineated parking spaces on Rodrigues Avenue and 68 delineated parking spaces on Torre Avenue. Delineated parking spaces are defined by posted parking signs and/or pavement markings. There are no posted parking signs or pavement markings on the block of Pacifica Drive adjacent to the Library Field; however parking is allowed on this stretch of road, which has room for approximately 26 parking spaces.

Bicycle Parking

The City has five (5) bicycle lockers intended for employee use. However, the bicycle lockers are being used primarily for bicycle storage rather than bicycle parking. There are no bicycle racks next to City Hall or the Community Hall. The Library has a total of 21 bicycle parking spaces: 16 spaces on bicycle racks near the book drop-off, and five (5) spaces at a moveable bicycle rack next to Coffee Society.





EXISTING PARKING DEMAND

The existing parking demand was observed during a survey conducted from 2:00 to 4:00 pm on Wednesday, March 7, 2012.

Parking Demand Survey

On-the-ground surveys are commonly used to determine parking demand for a particular site. The data gathered during such a survey is the preferred method used in determining parking demand; it represents actual observed demand under typical operating conditions. The data presented below was collected by Fehr & Peers during field observations on March 7, 2012. Observations were completed between 2:00 and 4:00 pm when employee and visitor demand would be expected to peak. The number of parking spaces occupied was tallied for the parking lot and on the adjacent streets of Rodrigues Avenue, Torre Avenue, and Pacifica Drive. The total Civic Center demand was calculated, as shown in **Table 1**. Aerial photographs, the Civic Center site plan, and the parking survey visit were used to quantify the available parking supply.

Based on the parking demand survey, 81 percent of the parking lot parking spaces (182 spaces) and 57 percent of the on-street parking spaces (59) were utilized during the afternoon peak period. Spaces located immediately adjacent to the buildings in the parking lot were the most highly utilized during the survey period. Vacant spaces were much more prevalent in the library parking lot near the Torre Avenue driveway, which is the farthest away from the Library entrance and book drop-off location. The library parking began to fill up around 3:00 pm. There was high turnover in the 4-minute parking spaces, which are next to the book drop-off.

The City Hall portion of the lot had designated parking spaces for 16 city fleet vehicles, one mail courier space, and one maintenance vehicle space. However, parking space designations were not always observed. The designated fleet vehicle spaces were full with both fleet vehicles and private vehicles. Some fleet vehicles parked in spaces throughout the lot. The mail courier space was vacant; the postal van was parked along the parking lot curb instead.

The diagonal and parallel on-street parking on Torre Avenue with no time limits was 100% and 86% full, respectively, during the survey period. The no-limit on-street parking on Torre Avenue closer to Pacifica Drive (and farthest from the Civic Center) was nearly empty during the parking survey. Similarly, there were no cars parked on the block of Pacifica Drive next to the Library Field.

Bicycle Parking

Bicycle parking demand was also assessed during the parking survey. One (1) bike was parked at the Coffee Society temporary rack, which can hold five (5) bikes), and five (5) bikes were parked at the bicycle racks near the book drop-off, which can hold 16 bikes. Through conversations with the City, the bicycle lockers were assumed to be 100% utilized as storage, but not as traditional bike parking.

**TABLE 1
PARKING DEMAND SURVEY RESULTS**

Location	Supply	Demand	Utilization
Civic Center Parking <i>(Parking lot & Street parking)</i>	328	241	73%
Parking Lot Total	224	182	81%
City Hall Parking	58	50	86%
<i>Employee & Visitor</i>	38	34	89%
ADA	2	0	0%
<i>City Vehicles</i>	16	15	94%
<i>Maintenance Vehicle</i>	1	1	100%
<i>Mail Courier</i>	1	0	0%
Library Parking	166	132	80%
<i>Employee & Visitor</i>	157	130	83%
ADA	5	1	20%
<i>4-Minute Parking</i>	4	1	25%
Street Parking	104	59	57%
Rodrigues Avenue	10	8	80%
<i>City Hall Parking</i>	8	6	75%
<i>Electric Vehicle Parking</i>	2	2	100%
Torre Avenue	68	51	75%
<i>Parallel (No Time Limit)</i>	21	18	86%
<i>Diagonal (No Time Limit)</i>	21	21	100%
<i>20 Minute Parking</i>	2	1	50%
<i>2 Hour Parking</i>	24	11	46%
Pacifica Drive	26	0	0%
Source: Fehr & Peers, March 2012.			

PARKING SOLUTIONS

The parking survey suggests that the existing parking supply meets existing demand. However, parking conditions at the Civic Center can vary depending on events and programming at the Community Hall and the Library. As reported by City staff, parking can be 100% utilized during popular Community Hall events. As such, solutions have been developed to improve parking conditions. The solutions include:

1. Parking supply increase strategies, which aim to increase the total supply of parking spaces both in the parking lot and on the street;
2. Parking demand decreases, which aim to decrease the number of single-occupant vehicles, and encourage all modes of travel;
3. Parking management measures, which can help manage the fluctuations in parking conditions throughout the day, week, and month.

The solutions are categorized into one of three implementation phases: short-term (0-1 years), medium-term (1-3 years), and long-term (3+ years). Potential parking solutions are listed in **Table 2**, and described in further detail below.

TABLE 2: CUPERTINO CIVIC CENTER PARKING OPTIONS

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Option		Short Term	Medium Term	Long Term
<i>Parking Supply Increase Strategies</i>				
1	Add perpendicular spaces in the parking lot near Cherry Tree Grove		X	
2	Add diagonal parking on Torre Avenue			X
3	Convert one Rodrigues Avenue parking space into approximately five motorcycle/scooter parking spaces	X		
4	Extend parking lot onto portion of Library Field			X
4a	Add 47 spaces to the north side of Library Field			X
4b	Add 48 spaces on Library Field in an extension to Pacifica Drive			X
4c	Add 21 spaces by expanding the Torre Avenue driveway			X
5	Construct parking deck below Library Field			X
<i>Parking Demand Decrease Strategies</i>				
6	Create Transportation Demand Management Programs for employees	X		
6a	Provide commuter checks to employees to encourage transit ridership	X		
6b	Create a bike buddy program for employees	X		
6c	Provide bike subsidies to employees through the commuter check program	X		
6d	Educate employees about bike commuting with handouts and programming	X		
6e	Provide parking cash-out for employees who do not drive to work	X		
6f	Create healthy families program to encourage families to bike/walk to the library	X		
6g	Designate carpool parking spaces	X		
7	Construct a multi-use path along the creek		X	
<i>Parking Management Measures</i>				
8	Charge employees monthly parking fees		X	
9	Charge visitors for parking at peak hours	X		
10	Restrict employee parking to least-convenient spaces	X		
11	Move city vehicles off-site	X		
12	Add bicycle racks near the City Hall entrance	X		
13	Create parking time limits in the lot	X		
14	Eliminate time limits for on-street parking spaces	X		
15	Add designated signs and pavement markings to on-street parking spaces on Pacifica Drive next to the Library Field.	X		
16	Develop an overflow parking plan	X		
16a	Discourage City employees from parking during peak community hall events	X		
16b	Add valet parking for large events	X		
Source: Fehr & Peers, March 2012.				

Parking Supply Increases

The following list provides strategies to increase the number of parking spaces available to vehicles at Civic Center.

1. Add perpendicular spaces to the lot near the cherry tree grove. Approximately 16 perpendicular parking spaces can be constructed into the cherry tree grove on the east side of the Community Hall. A row of cherry trees would need to be relocated to accommodate the additional spaces.
2. Construct diagonal parking on the east side of Torre Avenue. Approximately 11 diagonal parking spaces can be constructed on the east side of Torre Avenue replacing eight (8) existing parallel spaces. The addition of these spaces will require expensive curb reconstruction and the dislocation of trees.
3. Increase motorcycle and scooter parking by converting at least one parallel parking space on Rodrigues Avenue into approximately five (5) motorcycle/scooter parking stalls. The converted parking space should be one closest to the Civic Center main entrances.
4. Construct additional parking on Library Field. Two parking lot expansion proposals by Hill Associates suggest constructing parking on the Library Field (A & B). A third option (C), expands the Torre Avenue parking lot driveway. Unfortunately, all three proposals may reduce the size of Library Field to less than soccer or cricket field standards.
 - a. The first Hill Associates proposal suggests extending the parking lot by 47 spaces on the north side of the field, next to the Torre Avenue parking lot driveway.
 - b. The second Hill Associates proposal suggests extending the parking lot by 48 spaces on the west end of field, where it would dead-end at Pacifica Drive. Instead of dead-ending, the parking lot extension should connect to Pacific Drive, which will improve access to the Civic Center, and add 12 parking spaces.
 - c. A third option is to expand the width of Torre Avenue parking lot driveway into the Library Field. The redesign would retain the south side perpendicular parking and add 21 perpendicular parking spaces on the north side of the driveway.
5. Construct parking deck below Library Field. Below grade parking can be costly, however it can meet the best of both worlds: providing enough parking supply for employees and visitors, while retaining the benefits of the field. This option is a long-term strategy for the Civic Center.

Parking Demand Decrease

6. Create a Transportation Demand Management (TDM) program. A TDM program includes various strategies aimed at reducing the number of employees driving alone to work. The TDM program can include the following measures:
 - a. Encourage City Hall and Library employees to take transit by providing commuter checks or subsidized transit passes, such as Eco passes. The City could analyze employee residence locations and target their efforts for those who live near transit.
 - b. Encourage City Hall and Library employees to ride bikes to work through a bike buddy program, which helps assimilate new bike commuters by pairing them up with more experienced cyclists. The City could analyze employee residence location and target their efforts for those who live near bicycle facilities, or within five (5) miles of the Civic Center.

- c. Provide a bike subsidy through the commuter check program. The subsidy rewards commuters for bicycling to work. Bicyclists can use their subsidy to pay for bicycle-related gear, equipment, and maintenance.
 - d. Educate employees about bike commuting and make a big push during Bike to Work Week and Day. Work with the local Bike Coalition, such as the Silicon Valley Bicycle Coalition, on providing handouts and basic information for new bicycle commuters.
 - e. Provide parking cash-out to employees who do not drive to work. This strategy is best when if the City plans to charge employees a monthly fee for parking. It is aimed at rewarding employees who walk to work, bike, or use transit instead of drive.
 - f. Create a healthy families program to encourage families to bike or walk to the Library.
 - g. Encourage carpooling through services such as Zimride, which is a peer-to-peer carpool matching service. Create designated employee carpool spaces and provide free, discounted, or convenient parking to carpool vehicles. Employees who carpool should be reward for their efforts, either by sharing a potential monthly parking fee, or getting preferential parking spaces.
7. Construct a multi-use path on the creek bank adjacent to the Civic Center to provide a pleasant walking/biking access route.

Parking Management Measures

8. Implement an employee fee for monthly parking. The fee may equal the cash non-driving employees receive from the City for walking/biking/using transit to work. The purpose of the fee is to act as a disincentive, even if its price is not equivalent to a typical monthly parking pass.
9. Charge visitors for parking at peak hours. The fee will encourage higher turnover in the existing parking lot, and will also incentivize visitors with flexible schedules to schedule their trips during free, non-peak hours.
10. Restrict employee parking to least-convenient spaces in the parking lot. Designating employee parking will open up the more convenient parking to visitors.
11. Move city vehicles off-site. Currently the city vehicles take up 16 city parking spaces in the Civic Center parking lot. Instead of taking up scarce parking spaces, the City could consider finding an off-site parking lot for the vehicles.
12. Add bicycle racks near the entrance of City Hall and Community Hall. Currently there are only bicycle racks near the Library. City employees and visitors should have access to bicycle racks that are conveniently located near building entrances. Bicycle racks should be placed in high-visibility locations to deter theft.
13. Create more parking time limits within the parking lot to encourage parking space turnover for visitors.
14. Remove time limits for on-street spaces to increase their use.
15. Add delineated parking spaces through signs and pavement markings Pacifica Drive next to the Library Field. Construct pedestrian path through or adjacent to the athletic field to connect the library with the on-street parking.
16. Develop an overflow parking plan for events that are expected to draw large crowds.

- a. Prohibit or discourage City employees from driving during regularly scheduled peak community hall events.
- b. Add valet parking for large events. The valet parking fee can be free or nominal; the purpose of the valet will be to eliminate the inefficient parking lot cruising and circulating.

CONCLUSIONS

Based on the parking demand survey and data collected from the City, the Civic Center parking lot has a utilization rate of 81 percent and on-street parking had a utilization rate of 57 percent. Although both of these rates suggest available supply, anecdotal information suggests that parking shortages occur regularly, especially when there are Community Hall events.

Parking solutions will help improve circulation and manage demand during peak parking hours. The solutions include a variety of demand, supply, and management strategies, including adding parking to both the lot and the surrounding streets, enacting a Transportation Demand Management Program, charging for peak-hour parking times, and creating an overflow parking plan.