

MEMORANDUM

DATE: January 11, 2019

TO: Scott Evans, AICP
Interim Executive Director
Riviera Beach Community Redevelopment Agency

FROM: Christian Luz, DESMAN

COPY TO: Randy Sherman, City of Riviera Beach

RE: **Ocean Mall Parking Demand and Supply Analysis**
City of Riviera Beach Parking Recommendations

Overview

An estimate of in-season, weekend peak parking demand was developed for Ocean Mall assuming the developable space was 100% leased and occupied. No field counts or parking occupancy data was collected for the study, so the analysis was based on methods, analysis, assumptions, observations, industry norms, and standards of practice. The parking demand for retail and restaurant uses is expected to be within industry norms, while the demand for beach parking is more difficult to predict. Beach parking demand is highest during tourist season and is typically a combination of users who find an available parking space to use, in addition to latent demand for parking that occurs when beach goers would park if parking was available.

Ocean Mall Development Parking Demand

There are four separate buildings comprising the Mall: A, B, C and D – that provide a total of 67,186 square feet (SF) of development, including 47,707 SF of retail space distributed in all four buildings and 19,479 SF of restaurants in buildings B, C and D (see **Table 1**).

Table 1 - Development Type at Buildout

Building	Square Feet		
	Retail	Restaurant	Total
A	30,797	0	30,797
B	4,175	4,905	9,080
C	3,125	6,000	9,125
D	9,610	8,574	18,184
Total	47,707	19,479	67,186

Table 2 lists the weekend peak parking demand generation rates recommended by the Urban Land Institute (ULI) and the National Parking Association (NPA). The parking demand is estimated by multiplying the size (SF) of the development divided by the rate for that land use type. For example, to estimate the parking demand for retail, the 47,707 SF of retail use listed in **Table 1** is multiplied against

the parking generation rates listed for retail per 1,000 SF – employee and visitor. So, 47,707 SF of retail x 0.8 parking spaces/1,000 SF equals 38 employee spaces. This is repeated to estimate the visitor parking demand for retail using 3.2 spaces/1,000 SF (153 spaces) for a total demand of 191 spaces for retail uses (38 + 153 = 191 spaces). This same process is applied to estimate the restaurant parking demand using the SF of restaurants (19,479 SF) and the parking generation rates for restaurant.

Table 2 – Base Peak Parking Demand¹

Use	Parking Demand/1000 SF			Parking Demand (vehicles)		
	Employee	Visitor	Total	Employee	Visitor	Total
Retail	0.8	3.2	4.0	38	153	191
Restaurant	3.0	17.0	20.0	58	331	390
Total	3.8	20.2	24.0	97	484	580

¹ Parking generation rates source: The Dimensions of Parking, Fifth Edition, Urban Land Institute and National Parking Association, 2010.

As shown in **Table 2**, the total parking demand estimate for Ocean Mall for an in-season weekend day is 580 spaces. However, many of the visitors that frequent Ocean Mall are expected to shop or visit more than one store, consequently, a reduction is applied to the visitor demand to account for the visitors who frequent more than one establishment in a single trip, which is referred to as “Captive Reduction”. As shown in **Table 3**, 25 percent of the visitors are expected to visit more than one establishment in a single trip, such as a visitor who visits a retail shop prior to having dinner. The result is a reduction in parking demand of 121 spaces (38 parking spaces for retail and 83 parking spaces for restaurant). This reduces the parking demand from 580 to 459 spaces.

Table 3 - Captive Peak Period Demand Analysis

Demand Reductions	Retail	Restaurant	Total
Captive Reduction	25%	25%	N/A
Visitor Demand Reduction	(38)	(83)	(121)
Visitor Demand	114	248	363
Employee Demand	38	58	97
Total	153	307	459

Table 4 lists the total parking need for the Ocean Mall retail and restaurant uses based on an occupancy rate of 85 percent during the weekend peak hour. An occupancy rate of 85 percent is used so that arriving parkers are provided reasonable opportunities to find an available space. Taking the demand of 459 spaces (this would be at 100 percent occupancy) listed in **Table 3** and adjusting it to a parking supply that represents an occupancy rate of 85 percent results in a parking supply of 541 spaces as shown in **Table 4**. Also shown in **Table 4** is the existing parking supply surrounding the Ocean Mall of 430 spaces. Based on a need for 541 spaces and an existing supply of 430 spaces, there is a deficit of 111 spaces.

Table 4 - Development Peak Parking Need

Development Peak Parking Need	
Ocean Mall Supply	430 spaces
Total Adj. Parking Supply ¹	541 spaces
Parking Surplus/(Deficit)	(111) spaces

¹ Total adjusted parking supply is the parking demand at 85% full, i.e. 459 occupied spaces plus 15% vacant spaces = 541 spaces.

In-Season Weekend Beach Parking Demand

The Ocean Mall parking lots also provide parking for beach goers. While it is difficult to estimate, an assumption was made that during in-season, on a weekend day, peak demand for beach parking would be between 80 and 150 spaces (see **Table 5**). It is also recognized that many of the beach goers also frequent the retail and restaurant uses in the same trip, so a reduction factor was applied to the parking demand to reflect this characteristic.

Table 5 presents an estimate of the beach parking demand adjusted to reduce the demand to account for shared parking trips. The reduction was assumed to reflect that approximately 50 percent of the beach goers were also visitors to either the retail or restaurants, reducing the demand from a range of 80-150 parking spaces to between 40-75 parking spaces.

Table 5 - In-Season Beach Parking Demand

In-Season Beach Parking	80-150 spaces
Shared Trip Reduction	40-75 spaces
In-Season Adjusted Beach Pking	40-75 spaces

Summary of Ocean Mall Parking Needs

As shown in **Table 6**, the estimate parking deficit for the Ocean Mall, assuming a built-out, fully leased development scenario, during the peak period of an in-season weekend day, is between 151 and 186 spaces.

Table 6 - Summary Ocean Mall Parking Needs

Summary Peak Parking Needs	
Retail/Restuarant Parking Need	541 spaces
In-Season Beach Parking Need	40-75 spaces
Total Ocean Mall Parking Need	581-616 spaces
Ocean Mall Parking Supply	430 spaces
Total In-Season Parking Deficit	151-186 spaces