### **Town Centre**

Port St. Lucie, FL

### **Shared Parking Analysis**



Prepared For: 10011 S US1 Ventures LLC

May 2025



### City Centre Shared Parking Analysis

Port St. Lucie, Florida

May 2025 Revised May 2025

Prepared for:

### 10011 S US1 Ventures LLC

Prepared by:
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This item has been electronically signed and sealed by Ali Atefi, P.E. on the time and date stamp using the digital signature. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

ali atefi Digitally signed by ali atefi Date: 2025.05.19 15:40:42 -04'00'

Ali Atefi, P.E. Florida Registration Number 43854 15912 Stable Run Dr. Spring Hill, Florida 34610

### INTRODUCTION

Masoud Atefi & Associates Inc., have been retained to conduct a Shared Parking Analysis for a Retail Center entitled "City Centre" located on west side of Federal Highway (US-1), about 1.4 miles north of SE Port St, Lucie Boulevard, in City of Port St. Lucie, Florida. See Figure-1 (next page) for the general location of the site. This report has been prepared in conjunction with the City of Port St. Lucie guidelines provided in the City Code of Ordinances.

### **Existing Buildings & Land Use Locations**

There are currently a total of 15 buildings within the City Centre comprising of mixed land uses as illustrated on Figure-2 (next pages). Total building area in the Centre is over 340,000 SF and it includes mixed uses of retail, office, restaurants, a church, and a proposed private school which will replace an existing daycare for special needs children. Below is a summary and total areas of existing uses on the site:

- Office (General) 65,840 SF
- Medical Office 26,412 SF
- Retail 170,336 SF
- Restaurant (FF, HT) 6,938 SF
- School (Proposed for Max 250 Students, 11 Classrooms) 13,925 SF
- Church 14,168 SF, 8,000 SF Assembly Area
- Warehouse 16,282 SF
- Fitness Center 26,160 SF

It should be noted that City Centre was originally approved for a total of 417,454 SF of mixed office and retail uses. However, several parcels within the PUD remain unbuilt.

### **Existing Site Off-Street Parking Lot Locations**

There are currently a total of 18 separate parking lots within the Centre. Figure-3 on the next pages provides an illustration of the locations of the off-street parking lots on the site.

### Figure 1 – Site Location

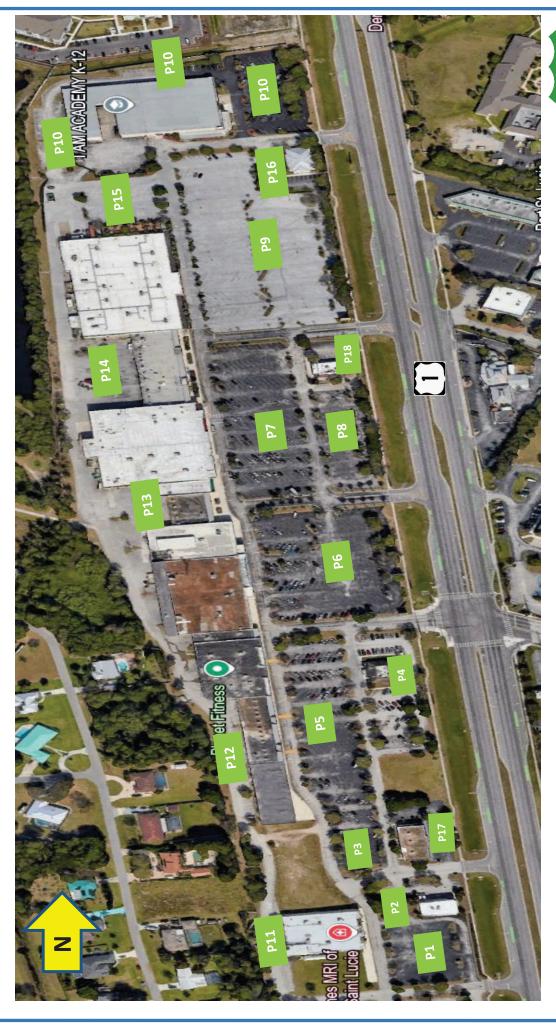


### Figure 2 – Town Centre Buildings





# Figure 3 – Town Centre Off-Street Parking Spaces





### **Existing Site Off-Street Site Parking Supply**

There are currently a total of 1,645 off-street regular parking stalls plus a total of 70 Handicapped parking spaces provide on the site (total 1,715 spaces). A total of 52 parking spaces are currently planned to be removed from lot #10 (from existing 182 spaces), to be dedicated to a playground and creation of student drop-off/Pick-up "safe Zone" for the proposed private school which at full capacity will be serving a maximum of 250 students in 11 classrooms.

Table-1 below provides an inventory of the number of existing parking spaces in each of the 18 parking lots.

| Table-1 | Existing | <b>Parking</b> | Supply |
|---------|----------|----------------|--------|
|---------|----------|----------------|--------|

|               | Existing P | arking Supply (stalls) |
|---------------|------------|------------------------|
| Parking Lot # | Regular    | Handicapped            |
| 1             | 67         | 7                      |
| 2             | 25         | 0                      |
| 3             | 78         | 6                      |
| 4             | 56         | 2                      |
| 5             | 178        | 13                     |
| 6             | 166        | 7                      |
| 7             | 187        | 11                     |
| 8             | 67         | 0                      |
| 9             | 380        | 12                     |
| 10*           | 176        | 6                      |
| 11            | 18         | 0                      |
| 12            | 36         | 0                      |
| 13            | 11         | 0                      |
| 14            | 37         | 0                      |
| 15            | 57         | 1                      |
| 16            | 17         | 1                      |
| 17            | 27         | 2                      |
| 18            | 17         | 2                      |
| Total         | 1645       | 70                     |

<sup>\* 52</sup> parking spaces to be removed due to Dalton Academy Playground and Safe Pick-up/Drop=off Zone

Indicated on Table-1, there are currently 1,645 Regular Parking Stalls and 70 Handicapped parking spaces provided on the site. Also, as indicated earlier, the site parking inventory is expected to be reduced by a total of 52 spaces due to the newly proposed school traffic circulation plan and construction of the school playground.

### **City Centre Off-Street Parking Requirement**

Parking requirements for the variety of uses within City Centre was determined using City of Port St. Lucie Coed of Ordinances # 158,221 (C). Table-2 (next page) provides calculations of the required parking spaces for each land use currently operational, planned, or being advertised to be leased. Square footage and land uses of all buildings are indicated on the table.

Note the following on the parking requirement analysis:

- No parking requirement rate is provided in the City Ordinance for Churches, and there are no similar land use rates to church which is only operational during Sunday services is provided in the City codes, therefore the globally accepted rate of 1 parking space for each 150 sf of Church Assembly area was used.
- Existing City Church of Treasure Coast is part of a proposed re-development plan which involves dedication of some of the existing church area to Dalton Learning Academy.
- The proposed Dalton Learning Academy includes a total of 11 classrooms.
- No parking reduction rate was applied to the parking requirement as allowed per the City Ordinance.
- No reduction was applied to restaurants, school, warehouse, and church uses.
- Previously approved "Site Data" for City Centre (see next page) indicates that a <u>rate of 1 parking</u>
   <u>space for each 300 SF of Retail or Office space</u> was used to determine number of required
   parking. In the analysis herein, we have used the updated parking requirements rates as
   presented in the City Ordinance.
- There are several <u>unbuild</u> parcels remaining within City Centre from the original approval.

| Existing Zoning                         |          | PUD    |
|---|----------|--------|
| Existing Land Use                       |          | CG     |
| Total Site Area 28.36 ac                | (1,235,3 | 80 sf) |
| Previously Approved Retail/OfficeSpace  | 416,     | 734 sf |
| Additonal Retail/Office Space Proposed_ |          | 720 sf |
| Total Retail Space                      | 361,     | 429 sf |
| Total Office Space                      | 56,      | 025 sf |
| Total Parking Required                  | 1,670    | spaces |
| Total Parking Provided                  | 1,714    | spaces |
| Handicap Spaces Provided                | 69       | spaces |
| Typical Spaces Provided                 | 1.645    | spaces |

Table-2 (on the next page) titled "Existing plus Proposed Uses Parking Requirements provides the following:

- Listing of all existing, proposed, and for lease buildings on Centre.
- Existing and proposed land uses.
- Total area for each building.
- Parking requirement rates for each building.
- Calculations for parking spaces required for each land use and the total parking requirement for the City Centre PUD.

As indicated on Table-2, a total of 1,615 parking spaces are required for the total of 416,734 SF of Buildings which have been constructed, planned, for lease, or approved and unbuilt within the site. Again, note that the original plan approval for the whole PUD was 416,734 SF, leaving 76,673 SF of previously approved unbuilt building. Also note that in determination of the site required parking spaces the unbuilt portion of the original approval plan was also included as general retail uses.

Table-2, Existing, Proposed & Unbuilt Uses Parking Requirements

|                                 |       |                    | Area    | Pkg         |                           |
|---------------------------------|-------|--------------------|---------|-------------|---------------------------|
| <b>Building Description</b>     | Bldg# | Use                | (SF)    | Code/SF*    | # Parking spaces Required |
| Neurology Internal              | 1     | Medical Office     | 20,312  | 1/250 SF    | 81                        |
| Habital Restore                 | 2     | Retail             | 11,000  | 1/250 SF    | 44                        |
| Cosno Prof, Fruits From Heaven, | 3     | Retail Strip       | 7,750   | 1/250 SF    | 31                        |
| Planes Dental                   | 3     | Medical Office     | 2,250   | 1/250 SF    | 9                         |
| Planet Fitness                  | 4     | Fitness Center     | 26,160  | 3/1000 SF   | 79                        |
| Beals                           | 5     | Retail             | 62,200  | 1/250 SF    | 249                       |
| T-Mobile, Rent a Center         | 6     | Retail             | 10,800  | 1/250 SF    | 43                        |
| dd's Discounts                  | 7     | Retail             | 52,500  | 1/250 SF    | 210                       |
| Salon Centric                   | 8     | Retail             | 16,800  | 1/250 SF    | 67                        |
| For Lease                       | 9     | Office             | 65,840  | 1/250 SF    | 263                       |
| Perkins Medical Supply          | 10    | Retail             | 3,456   | 1/250 SF    | 14                        |
| Verizon                         | 11    | Retail             | 5,830   | 1/250 SF    | 23                        |
| Denny's                         | 12    | HT Restaurant      | 4,200   | 1/75 SF     | 56                        |
| Arby's                          | 13    | FF Restaurant +DT  | 2,738   | 1/200 SF    | 14                        |
| Retina Specialists              | 14    | Medical Office     | 3,850   | 1/250 SF    | 15                        |
| City Church of Treasure Coast   | 15    | Church             | 14,168  | 1/150 SF**  | 54                        |
| Salvation Army                  | 15    | Warehouse/storage  | 16,282  | 1/500 SF    | 33                        |
| Dalton Learning Academy***      | 15    | Private School k12 | 13,925  | 2/Classroom | 22                        |
| Unbuilt Retail                  | N/A   | Retail             | 76,673  | 1/250 SF    | 307                       |
|                                 |       | Total Area (SF)    | 416,734 | Total       | 1615                      |

<sup>\*</sup> City of Port St. Lucie, Code of Ordinances, Code #158-221

<sup>\*\*</sup> Per Church 8000 SF Assembly area

<sup>\*\*\*</sup> Proposed with 11 Classrooms

### SHARED PARKING ANALYSIS

Shared parking analysis is generally conducted for mixed use developments which comprise of land uses with peak parking demands during different hours of the day. In the case of the City Centre the mix of land uses are very favorable for parking to be shared between different uses with vast differences in daily and peak hour parking demands. The analysis included review of both weekday and weekend conditions. Important to note the church operates only on Sundays, while the private school is fully closed on Weekends. Also, for Weekend parking demand a conservative approach was taken in using the peak hours of parking demand during Saturday or Sunday, whichever produces the higher demand. The hourly demand rates were taken from ITE Trip Generation Manual, 3<sup>rd</sup> Edition. See the report Appendix for hourly parking demand rates for each of the land uses on the site.

Weekday and Weekend shared parking analysis are presented in Table using the City of Delray Beach specifications presented on Tables 3 and 4 (next pages), respectively. Results of the shared parking analysis indicates that the peak parking demand during Weekdays is 376 parking spaces (depicted in color red), which occurs between 12-1:00 pm. Furthermore, the peak parking demand during Weekends is 359 parking spaces (depicted in color red), also occurring between the hours of 12-1:00 pm.

With a total parking supply of 1,715 spaces (1,645 Regular and 70 Handicapped spaces) in City Centre, it is concluded that there are far too many spaces to satisfy parking demand during all hours on Weekdays and Weekends, even if 52 spaces are removed at the City Church/Dalton Academy site.

## Table 3 - Weekday Shared Parking Analysis - City Centre, Port St. Lucie

|             |        |                |        |                |      |        |         | Wee           | ekday H | Weekday Hourly Parking Demand | rking D | emand     |         |                |         |        |              |        |                  |
|-------------|--------|----------------|--------|----------------|------|--------|---------|---------------|---------|-------------------------------|---------|-----------|---------|----------------|---------|--------|--------------|--------|------------------|
|             | Genera | General Office | Medica | Medical Office | Ret  | Retail | HT Rest | HT Restaurant | FF Rest | FF Restaurant<br>WDT          | Ware    | Warehouse | Fitness | Fitness Center | Church  |        | School       |        | Total            |
| Time of Day | Üţi    | Spaces         | Œ      | Spaces         | Otil | Spaces | nți.    | Spaces        | Util    | Spaces                        | Util    | Spaces    | Util    | Spaces         | Util Sp | Spaces | Otil<br>Otil | Spaces | Hourly<br>Demand |
| 6:00 AM     | %9     | 4              | %0     | 0              | %0   | 0      | 24%     | 1             | %0      | 0                             | %0      | 0         | %0      | 0              |         | Ш      | %0           | 0      | 5                |
| 7:00 AM     | %95    | 37             | 15%    | 4              | 2%   | 12     | 42%     | 2             | 35%     | 1                             | 25%     | 6         | 10%     | 3              |         |        | 2%           | 1      | 69               |
| 8:00 AM     | %98    | 57             | 49%    | 13             | 18%  | 44     | 24%     | 2             | 41%     | 1                             | 71%     | 12        | 45%     | 12             |         | 7      | 23%          | 2      | 146              |
| 9:00 AM     | 826    | 64             | 84%    | 22             | 38%  | 94     | 73%     | 3             | 36%     | 1                             | 95%     | 15        | 22%     | 14             |         | 1      | 100%         | 22     | 235              |
| 10:00 AM    | 100%   | 99             | 100%   | 26             | 23%  | 131    | 81%     | 3             | 36%     | 1                             | 100%    | 16        | %98     | 22             |         | 1      | 100%         | 22     | 288              |
| 11:00 AM    | %86    | 65             | 100%   | 26             | %98  | 212    | 100%    | 4             | 78%     | 2                             | %66     | 16        | 71%     | 19             |         | ω      | 85%          | 19     | 363              |
| 12 Noon     | 87%    | 57             | %88    | 23             | 100% | 247    | 100%    | 4             | 100%    | 3                             | %88     | 14        | 53%     | 14             |         | 9      | 97%          | 14     | 376              |
| 1:00 PM     | 75%    | 49             | %62    | 21             | %86  | 242    | 100%    | 4             | %88     | 2                             | 71%     | 12        | 49%     | 13             |         | ω      | %08          | 18     | 361              |
| 2:00 PM     | 84%    | 55             | %98    | 23             | 91%  | 225    | 51%     | 2             | %98     | 2                             | %59     | 11        | 42%     | 11             |         | 7      | 44%          | 10     | 339              |
| 3:00 PM     | 87%    | 57             | %96    | 25             | %98  | 212    | 40%     | 2             | %95     | 2                             | 52%     | 8         | 49%     | 13             |         | (7     | 24%          | 5      | 325              |
| 4:00 PM     | 75%    | 49             | 91%    | 24             | 81%  | 200    | 40%     | 2             | 52%     | 1                             | 33%     | 5         | %9/     | 20             |         |        | %0           | 0      | 302              |
| 5:00 PM     | 43%    | 28             | 72%    | 19             | 21%  | 141    | %62     | 3             | 61%     | 2                             | 30%     | 2         | 88%     | 23             |         |        | %0           | 0      | 221              |
| 6:00 PM     | 18%    | 12             | 15%    | 4              | %69  | 170    | 81%     | 3             | %69     | 2                             | 12%     | 2         | 100%    | 26             |         |        | %0           | 0      | 220              |
| 7:00 PM     | %0     | 0              | %0     | 0              | 82%  | 203    | %79     | 3             | %89     | 2                             | %0      | 0         | 77%     | 20             |         |        | %0           | 0      | 227              |
| 8:00 PM     | %0     | 0              | %0     | 0              | %02  | 173    | %09     | 3             | 24%     | 1                             | %0      | 0         | 62%     | 16             |         |        | %0           | 0      | 192              |
| 9:00 PM     | %0     | 0              | %0     | 0              | 45%  | 104    | %09     | 3             | 18%     | 1                             | %0      | 0         | 43%     | 11             |         |        | %0           | 0      | 119              |
| 10:00 PM    | %0     | 0              | %0     | 0              | 10%  | 25     | 46%     | 2             | 10%     | 1                             | %0      | 0         | %0      | 0              |         |        | %0           | 0      | 28               |
| 11:00 PM    | %0     | 0              | %0     | 0              | %0   | 0      | 42%     | 2             | %0      | 0                             | %0      | 0         | %0      | 0              |         |        | %0           | 0      | 2                |
| 12:00 AM    | %0     | 0              | %0     | 0              | %0   | 0      | %0      | 0             | %0      | 0                             | %0      | 0         | %0      | 0              |         |        | %0           | 0      | 0                |

\* Hourly parking demand ratios - Source: ITE Parking Generation, 3rd Edition

Table 3 - Weekend (Higher of Sat/Sun) Shared Parking Analysis - City Centre, Port St. Lucie

|             |          |          |                |          |        |        |         | ×          | ekend     | Weekend Hourly Parking Demand | arking [ | Jemand    |         |                |      |        |             |                  |
|-------------|----------|----------|----------------|----------|--------|--------|---------|------------|-----------|-------------------------------|----------|-----------|---------|----------------|------|--------|-------------|------------------|
|             | General  |          | :              | <u> </u> |        |        |         |            | FF Res    | FF Restaurant                 |          |           | i       |                |      |        | -           | -<br>-<br>-      |
|             | Ottice   |          | Medical Office | tice     | Retail |        | HT Rest | Restaurant | <b>\$</b> | WDT                           | Ware     | Warehouse | Fitness | Fitness Center | CPI  | Church | School      | Total            |
| Time of Day | Util Spa | Spaces L | Util Spa       | Spaces L | Util   | Spaces | Util    | Spaces     | Util      | Spaces                        | Util     | Spaces    | Util    | Spaces         | Util | Spaces | Util Spaces | Hourly<br>Demand |
| 6:00 AM     |          |          | ) %0           | 0        | %0     | 0      | 15%     | 1          | %0        | 0                             | %0       | 0         | %0      | 0              | %0   | 0      |             | 1                |
| 7:00 AM     |          | 1        | 15%            | 4 1      | 13%    | 32     | 23%     | 1          | %0        | 0                             | 10%      | 2         | %0      | 0              | %0   | 0      |             | 39               |
| 8:00 AM     |          | 4        | 49% 1          | 13 2     | 27%    | 29     | 39%     | 2          | 15%       | 1                             | 71%      | 12        | 22%     | 9              | 2%   | 1      |             | 100              |
| 9:00 AM     |          | ∞        | 84% 2          | 22 6     | 61%    | 151    | %95     | 2          | 15%       | 1                             | 95%      | 15        | 33%     | 6              | 100% | 54     |             | 254              |
| 10:00 AM    |          | 10       | 100%           | 26 7     | 75%    | 185    | 100%    | 4          | 15%       | 1                             | 100%     | 16        | %98     | 22             | 100% | 54     |             | 310              |
| 11:00 AM    |          | 10       | 100%           | 26 9     | %06    | 222    | 100%    | 4          | 48%       | 1                             | %66      | 16        | 71%     | 19             | 100% | 54     |             | 343              |
| 12 Noon     |          | ∞        | 88% 2          | 23 10    | 100%   | 247    | 100%    | 4          | 100%      | 3                             | %88      | 14        | 23%     | 14             | 100% | 54     |             | 359              |
| 1:00 PM     |          | 7        | 79% 2          | 21 9     | %66    | 245    | 100%    | 4          | 100%      | 3                             | 45%      | 7         | 49%     | 13             | 12%  | 3      |             | 296              |
| 2:00 PM     |          | ∞        | 86% 2          | 23 9     | %86    | 242    | 53%     | 2          | 75%       | 2                             | 34%      | 9         | 42%     | 11             | %0   | 0      |             | 286              |
| 3:00 PM     |          | 6        | 96% 2          | 25 8     | %88    | 217    | 79%     | 1          | 25%       | 2                             | 25%      | 4         | 49%     | 13             | %0   | 0      |             | 262              |
| 4:00 PM     |          | 6        | 91%            | 24 6     | %89    | 168    | 36%     | 2          | 29%       | 2                             | 12%      | 2         | %9/     | 20             | %0   | 0      |             | 217              |
| 5:00 PM     |          | 7        | 72%            | 19 5     | %95    | 138    | 42%     | 2          | %89       | 2                             | 2%       | 1         | 88%     | 23             | %0   | 0      |             | 185              |
| 6:00 PM     |          | 1        | 15%            | 4 7      | 73%    | 180    | 53%     | 2          | 74%       | 2                             | %0       | 0         | 100%    | 26             | %0   | 0      |             | 215              |
| 7:00 PM     |          |          | 0 % 0          | 0 5      | 52%    | 128    | 100%    | 4          | 72%       | 2                             | %0       | 0         | 77%     | 20             | %0   | 0      |             | 155              |
| 8:00 PM     |          | 0        | ) %0           | 0 5      | 23%    | 131    | 42%     | 2          | 14%       | 13                            | %0       | 0         | 62%     | 16             | %0   | 0      |             | 162              |
| 9:00 PM     |          | J        | 0 %0           | 0        | 44%    | 109    | 79%     | 1          | 7%        | 1                             | %0       | 0         | 44%     | 12             | %0   | 0      |             | 122              |
| 10:00 PM    |          | J        | ) %0           | 0 2      | 79%    | 72     | 30%     | 1          | %0        | 0                             | %0       | 0         | %0      | 0              | %0   | 0      |             | 73               |
| 11:00 PM    |          | J        | ) %0           | 0        | %0     | 0      | 40%     | 2          | %0        | 0                             | %0       | 0         | %0      | 0              | %0   | 0      |             | 2                |
| 12:00 AM    |          | J        | ) / %0         | 0        | %0     | 0      | 44%     | 2          | %0        | 0                             | %0       | 0         | %0      | 0              | %0   | 0      |             | 2                |

\* Hourly parking demand ratios - Source: ITE Parking Generation, 3rd Edition

### **Report Summary**

### <u>City Centre – Shared Parking Analysis</u>

Municipality: Port St. Lucie

**Location:** West side of US-1, about 1.4 miles north of SE Port St. Lucie Boulevard

**Parcel ID#:** 4401-701-0001-000-2 and others on file.

**Max Hourly Parking** 

**Demand:** 376 Spaces Weekdays (12-1:00 pm) – 359 spaces Weekends (12-1:00 pm)

**Total Parking** 

**Supply:** 1645 Regular Spaces and 70 Handicapped Spaces

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### **Appendix**

### Land Use: 820 **Shopping Center**

The following tables present the time-of-day distributions for parking demand.

### December

| <b>建设建于大大民主动</b>   | Monday-                      | Thursday                     | Fri                          | day               | Satu               | rday              |
|--------------------|------------------------------|------------------------------|------------------------------|-------------------|--------------------|-------------------|
| Hour Beginning     | Percent of<br>Peak<br>Period | Number of<br>Data<br>Points* | Percent of<br>Peak<br>Period | Number of<br>Data | Percent of<br>Peak | Number of<br>Data |
| 12:00-4:00 a.m.    | _                            | 0                            |                              | Points*           | Period             | Points*           |
| 5:00 a.m.          | _                            | 0                            | _                            | 0                 | _                  | 0                 |
| 6:00 a.m.          | _                            | 0                            | _                            | 0                 | _                  | 0                 |
| 7:00 a.m.          | 9                            | 1                            | _                            | 0                 | _                  | 0                 |
| 8:00 a.m.          | 16                           | 1                            | 55                           | 0                 | _                  | 0                 |
| 9:00 a.m.          | 62                           | 4                            | 76                           | 1                 | _                  | 0                 |
| 10:00 a.m.         | 64                           | 5                            | 77                           | 3                 | _                  | 0                 |
| 11:00 a.m.         | 91                           | 7                            |                              | 6                 | 78                 | 10                |
| 12:00 p.m.         | 87                           | 5                            | 92                           | 6                 | 94                 | 10                |
| 1:00 p.m.          | 84                           | 9                            | 100                          | 6                 | 100                | 10                |
| 2:00 p.m.          | 100                          | 9                            | 100                          | 6                 | 93                 | 10                |
| 3:00 p.m.          | 95                           |                              | 90                           | 6                 | 95                 | 10                |
| 4:00 p.m.          | 85                           | 10                           | 88                           | 6                 | 94                 | 10                |
| 5:00 p.m.          | 91                           | 7                            | 87                           | 6                 | 87                 | 10                |
| 6:00 p.m.          | 96                           | 8                            | 87                           | 6                 | 81                 | 10                |
| 7:00 p.m.          | 95                           | 6                            | 85                           | 6                 | 69                 | 10                |
| 8:00 p.m.          |                              | 6                            | 84                           | 6                 | _                  | 0                 |
| 9:00 p.m.          | _                            | 0                            | 87                           | 4                 | _                  | 0                 |
| 10:00 p.m.         | -                            | 0                            | _                            | 0                 | _                  | 0                 |
| 11:00 p.m.         | _                            | 0                            | _                            | 0                 | _                  | 0                 |
| * Subset of databa | _                            | 0                            | _                            | 0                 | _                  | 0                 |

Subset of database

### Non-December

|                 | Monday-                      | Thursday                     | Fri                          | day                          | Satur                        | rday                   |
|-----------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------|
| Hour Beginning  | Percent of<br>Peak<br>Period | Number of<br>Data<br>Points* | Percent of<br>Peak<br>Period | Number of<br>Data<br>Points* | Percent of<br>Peak<br>Period | Number of Data Points* |
| 12:00-4:00 a.m. | _                            | 0                            | _                            | 0                            | -                            | 0                      |
| 5:00 a.m.       | _                            | 0                            | _                            | 0                            | _                            | 0                      |
| 6:00 a.m.       | _                            | 0                            | _                            | 0                            | _                            | 0                      |
| 7:00 a.m.       | 5                            | 1                            | _                            | 0                            | 13                           | 1                      |
| 8:00 a.m.       | 18                           | 2                            | _                            | 0                            | 27                           | 2                      |
| 9:00 a.m.       | 38                           | 3                            | _                            | 0                            | 61                           | 3                      |
| 10:00 a.m.      | 53                           | 3                            | 59                           | 5                            | 75                           | 6                      |
| 11:00 a.m.      | 86                           | 4                            | 74                           | 6                            | 90                           | 7                      |
| 12:00 p.m.      | 100                          | 4                            | 94                           | 7                            | 100                          | 7                      |
| 1:00 p.m.       | 98                           | 4                            | 85                           | 8                            | 99                           | 7                      |
| 2:00 p.m.       | 91                           | 4                            | 74                           | 8                            | 98                           | 7                      |
| 3:00 p.m.       | 86                           | 4                            | 68                           | 8                            | 88                           | 6                      |
| 4:00 p.m.       | 81                           | 4                            | 67                           | 8                            | 68                           | 5                      |
| 5:00 p.m.       | 57                           | 3                            | 70                           | 7                            | 56                           | 4                      |
| 6:00 p.m.       | 69                           | 3                            | 76                           | 7                            | 73                           | 2                      |
| 7:00 p.m.       | 82                           | 2                            | 100                          | 3                            | 52                           | 1                      |
| 8:00 p.m.       | 70                           | 2                            | 91                           | 3                            | 53                           | 1                      |
| 9:00 p.m.       | 42                           | 2                            | _                            | 0                            | 44                           | 1                      |
| 10:00 p.m.      | 10                           | 1                            | _                            | 0                            | 29                           | 1                      |
| 11:00 p.m.      | _                            | 0                            | _                            | 0                            | _                            | 0                      |

<sup>\*</sup> Subset of database

### Land Use: 701 Office Building

As noted, peak parking demand rates were different between sites located in suburban settings and those located in urban settings for the independent variable 1,000 sq. ft. GFA. The individual site surveys did not enable a quantitative explanation of the factors that caused the difference. One potential explanation may relate to differences in the availability of alternative modes (for example, transit, bike and pedestrian) available at the urban sites. Of the studies with data on transit availability and presence of a TDM program, the suburban sites reported about 55 percent with available transit services and 20 percent with TDM programs. The urban sites reported 100 percent with available transit and 83 percent with TDM programs of some form.

Weekend parking demand data were available at two study sites. At one site, the Saturday peak demand was less than 10 percent of peak weekday demand at the same site. At the other site, the Saturday and Sunday demand approached 90 percent of the weekday peak demand for the same site. It was not possible to derive reliable weekend parking demand rates due to lack of information on the nature of work conducted during the weekend at the two sites.

The size of one site (1.9 million sq. ft. GFA) resulted in a data plot with a scale that did not allow the 12 data points for sites less than 500,000 sq. ft. GFA to be reasonably distinguished for user analysis. Therefore, the large site was not included in the data plot for urban sites. The peak parking demand rate for the 1.9 million sq. ft. GFA site was 2.58 vehicles per 1,000 sq. ft. GFA, which was approximately the same as the average for the other 12 study sites.

The following table presents the time-of-day distributions of parking demand variation for suburban and urban sites. The only sites included in the table data were those that submitted at least four consecutive hours of parking demand observations (note: the majority of the parking demand data in the overall database consisted of one or two hourly observations).

| Based on Vehicles per<br>1,000 sq. ft. GFA | Weekday S                 | uburban Data              | Weekday                   | Urban Data                |
|--|---------------------------|---------------------------|---------------------------|---------------------------|
| Hour Beginning                             | Percent of<br>Peak Period | Number of Data<br>Points* | Percent of Peak<br>Period | Number of Data<br>Points* |
| 12:00-4:00 a.m.                            | _                         | 0                         | _                         | 0                         |
| 5:00 a.m.                                  | _                         | 0                         | _                         | 0                         |
| 6:00 a.m.                                  | 6                         | 1                         | _                         | 0                         |
| 7:00 a.m.                                  | 56                        | 2                         | 20                        | 2                         |
| 8:00 a.m.                                  | 86                        | 11                        | 68                        | 4                         |
| 9:00 a.m.                                  | 97                        | 13                        | 90                        | 4                         |
| 10:00 a.m.                                 | 100                       | 12                        | 96                        | 4                         |
| 11:00 a.m.                                 | 98                        | 12                        | 95                        | 4                         |
| 12:00 p.m.                                 | 87                        | 11                        | 94                        | 4                         |
| 1:00 p.m.                                  | 75                        | 6                         | 96                        | 4                         |
| 2:00 p.m.                                  | 84                        | 6                         | 100                       | 4                         |
| 3:00 p.m.                                  | 87                        | 6                         | 99                        | 4                         |
| 4:00 p.m.                                  | 75                        | 6                         | 92                        | 4                         |
| 5:00 p.m.                                  | 43                        | 7                         | 62                        | 3                         |
| 6:00 p.m.                                  | 18                        | 2                         | _                         | 0                         |
| 7:00 p.m.                                  | _                         | 0                         | _                         | 0                         |
| 8:00 p.m.                                  | _                         | 0                         | _                         | 0                         |
| 9:00 p.m.                                  | _                         | 0                         | _                         | 0                         |
| 10:00 p.m.                                 | _                         | 0                         | _                         | 0                         |
| 11:00 p.m.                                 | _                         | 0                         | _                         | 0                         |

<sup>\*</sup> Subset of database

### Land Use: 492 Health/Fitness Club

### Land Use Description

Health/fitness clubs are privately owned facilities that primarily focus on individual fitness or training. Typically these clubs provide exercise classes, weightlifting, fitness and gymnastics equipment; spas; locker rooms; and small restaurants or snack bars. This land use may also include small facilities (ancillary to fitness activity) such as swimming pools, whirlpools, saunas, tennis, racquetball and handball courts and limited retail. These facilities are membership clubs that may allow access to the general public for a fee. Racquet/tennis club (Land Use 491), athletic club (Land Use 493) and recreational community center (Land Use 495) are related uses.

### **Database Description**

The database consisted of all suburban sites with the exception of two urban sites. Parking demand rates at the two urban sites were similar to those of the suburban sites and therefore the data were combined and analyzed together.

- Average parking supply ratios: 5.9 spaces per 1,000 sq. ft. GFA (nine study sites) and 0.15 spaces per member (five study sites).
- Average employee density: 0.57 per 1,000 sq. ft. GFA (nine study sites).

The majority of the data were collected during the winter.

Parking demand counts were submitted for only single hour observations between 6:00 and 7:00 p.m. for 14 of the 20 study sites. Multi-hour continuous counts at the other six study sites indicate the peak period was typically in the same hour as the single counts. The following table presents time-of-day distribution of parking demand for the study sites.

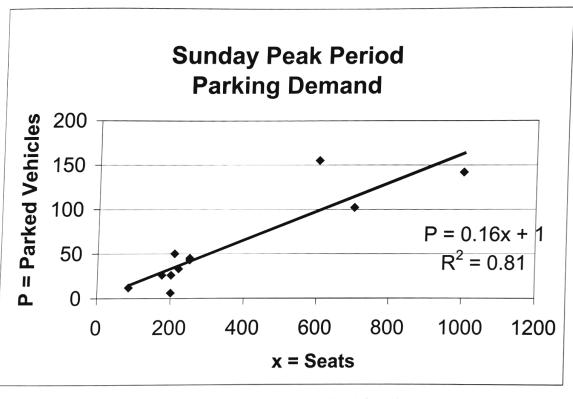
| Based on<br>Vehicles per GFA | Weekd                  | ay Data                |
|------------------------------|------------------------|------------------------|
| Hour Beginning               | Percent of Peak Period | Number of Data Points* |
| 12:00-4:00 a.m.              | _                      | 0                      |
| 5:00 a.m.                    | _                      | 0                      |
| 6:00 a.m.                    | _                      | 0 .                    |
| 7:00 a.m.                    | _                      | 0                      |
| 8:00 a.m.                    | _                      | 0                      |
| 9:00 a.m.                    | _                      | 0                      |
| 10:00 a.m.                   | 86                     | 2                      |
| 11:00 a.m.                   | 71                     | 2                      |
| 12:00 p.m.                   | 53                     | 2                      |
| 1:00 p.m.                    | 49                     | 2                      |
| 2:00 p.m.                    | 42                     | 2                      |
| 3:00 p.m.                    | 49                     | 2                      |
| 4:00 p.m.                    | 76                     | 4                      |
| 5:00 p.m.                    | 88                     | 7                      |
| 6:00 p.m.                    | 100                    | 20                     |
| 7:00 p.m.                    | 77                     | 5                      |
| 8:00 p.m.                    | 62                     | 2                      |
| 9:00 p.m.                    | _                      | 0                      |
| 10:00 p.m.                   | _                      | 0                      |
| 11:00 p.m.                   | _                      | 0                      |

<sup>\*</sup> Subset of database

### Land Use: 560 Church

### Average Peak Period Parking Demand vs: Seats On a: Sunday

| Statistic                          | Peak Period Demand          |
|------------------------------------|-----------------------------|
| Peak Period                        | 9:00 a.m12:00 p.m.          |
| Number of Study Sites              | 11                          |
| Average Size of Study Sites        | 350 seats                   |
| Average Peak Period Parking Demand | 0.16 vehicles per seat      |
| Standard Deviation                 | 0.06                        |
| Coefficient of Variation           | 38%                         |
| Range                              | 0.03-0.24 vehicles per seat |
| 85th Percentile                    | 0.21 vehicles per seat      |
| 33rd Percentile                    | 0.14 vehicles per seat      |



Actual Data Points

----- Fitted Curve/Average Rate

### Land Use: 934 Fast-Food Restaurant with Drive-Through Window

The following table presents the weekday and Saturday time-of-day distributions of parking demand for all restaurant sites.

| Based on Vehicles per            | Wee                       | kday                      | Satu                      | ırday                     |
|----------------------------------|---------------------------|---------------------------|---------------------------|---------------------------|
| 1,000 sq. ft. GFA Hour Beginning | Percent of<br>Peak Period | Number of<br>Data Points* | Percent of<br>Period Hour | Number of<br>Data Points* |
| 12:00–4:00 a.m.                  |                           | 0                         | _                         | 0                         |
| 5:00 a.m.                        | _                         | 0                         | _                         | 0                         |
| 6:00 a.m.                        | _                         | 0                         | _                         | 0                         |
| 7:00 a.m.                        | 35                        | 2                         | _                         | 0                         |
| 8:00 a.m.                        | 41                        | 5                         | _                         | 0                         |
| 9:00 a.m.                        |                           | 0                         | _                         | 0                         |
| 10:00 a.m.                       | 36                        | 2                         | _                         | 0                         |
| 11:00 a.m.                       | 78                        | 10                        | 48                        | 8                         |
| 12:00 p.m.                       | 100                       | 46                        | 100                       | 22                        |
| 1:00 p.m.                        | 88                        | 30                        | 100                       | 13                        |
| 2:00 p.m.                        | 86                        | 6                         | 75                        | 10                        |
| 3:00 p.m.                        | 56                        | 4                         | 55                        | 3                         |
| 4:00 p.m.                        | 52                        | 6                         | 59                        | 5                         |
| 5:00 p.m.                        | 61                        | 16                        | 68                        | 6                         |
| 6:00 p.m.                        | 69                        | 9                         | 74                        | 2                         |
| 7:00 p.m.                        | 63                        | 6                         | 72                        | 1                         |
| 8:00 p.m.                        | 24                        | 1                         | 14                        | 1                         |
| 9:00 p.m.                        | _                         | 0                         | _                         | 0                         |
| 10:00 p.m.                       | _                         | 0                         | _                         | 0                         |
| 11:00 p.m.                       | _                         | 0                         | _                         | 0                         |

<sup>\*</sup> Subset of database

### **Additional Data**

The National Restaurant Association identifies August as the most popular month to eat out and Saturday as the most popular day of the week for dining out.<sup>1</sup>

Monthly parking variation cannot be derived from the available data. However, the following limited-service restaurant sales information averaged for the period 1999 through 2003 from the U.S. Census is provided as a reference to peak month activity. The limited-service restaurantsthat compose the U.S. Census data set may not have the same land use characteristics as sites contained in the ITE *Parking Generation* database for this land use.

<sup>&</sup>lt;sup>1</sup> National Restaurant Association. www.restaurant.org/faq.cfm

### Land Use: 932 High-Turnover (Sit-Down) Restaurant

The following tables present the time-of-day distribution of the variation in parking demand during the course of the day was available for weekdays. The data represents a combination of urban and rural study sites.

| Based on Vehicles<br>per 1,000 sq. ft. GFA | Weekday at a<br>Family Restaurant |                           | Weekday at a Restaurant with Bar or Lounge |                           |
|--|-----------------------------------|---------------------------|--|---------------------------|
| Hour Beginning                             | Percent of<br>Peak Period         | Number of<br>Data Points* | Percent of<br>Peak Period                  | Number of<br>Data Points* |
| 12:00-4:00 a.m.                            | _                                 | 0                         | _  | 0                         |
| 5:00 a.m.                                  | _                                 | 0                         | _  | 0                         |
| 6:00 a.m.                                  | 24                                | 4                         | _  | 0                         |
| 7:00 a.m.                                  | 42                                | 5                         | _  | 0                         |
| 8:00 a.m.                                  | 54                                | 8                         | _  | 0                         |
| 9:00 a.m.                                  | 73                                | 9                         | 6  | 1                         |
| 10:00 a.m.                                 | 81                                | 9                         | 8  | 1                         |
| 11:00 a.m.                                 | 100                               | 14                        | 26   | 7                         |
| 12:00 p.m.                                 | 100                               | 33                        | 50   | 7                         |
| 1:00 p.m.                                  | 100                               | 23                        | 35   | 7                         |
| 2:00 p.m.                                  | 51                                | 12                        | 31   | 1                         |
| 3:00 p.m.                                  | 40                                | 11                        | 22   | 1                         |
| 4:00 p.m.                                  | 40                                | 12                        | 25   | 1                         |
| 5:00 p.m.                                  | 79                                | 13                        | 73   | 6                         |
| 6:00 p.m.                                  | 81                                | 13                        | 100  | 10                        |
| 7:00 p.m.                                  | 62                                | 11                        | 100  | 17                        |
| 8:00 p.m.                                  | 63                                | 11                        | 80   | 11                        |
| 9:00 p.m.                                  | 60                                | 7                         | 58   | 7                         |
| 10:00 p.m.                                 | 46                                | 5                         | _  | 0                         |
| 11:00 p.m.                                 | 42                                | 2                         | _  | 0                         |

<sup>\*</sup> Subset of database

| Based on Vehicles<br>per 1,000 sq. ft. GFA | Saturday at a<br>Family Restaurant |    | Saturday at a Restaurant with Bar or Lounge |                           |
|--|------------------------------------|----|---|---------------------------|
| Hour Beginning                             | Percent of<br>Peak Period          |    | Percent of<br>Peak Period                   | Number of<br>Data Points* |
| 12:00-4:00 a.m.                            | _                                  | 0  | _   | 0                         |
| 5:00 a.m.                                  | _                                  | 0  | _   | 0                         |
| 6:00 a.m.                                  | 15                                 | 4  | _   | 0                         |
| 7:00 a.m.                                  | 23                                 | 5  | _   | 0                         |
| 8:00 a.m.                                  | 39                                 | 7  | _   | 0                         |
| 9:00 a.m.                                  | 56                                 | 9  | 4   | 1                         |
| 10:00 a.m.                                 | 100                                | 10 | 6   | 1                         |
| 11:00 a.m.                                 | 100                                | 10 | 17  | 1                         |
| 12:00 p.m.                                 | 100                                | 12 | 36  | 1                         |
| 1:00 p.m.                                  | 100                                | 11 | 46  | 1                         |
| 2:00 p.m.                                  | 53                                 | 12 | 41  | 1                         |
| 3:00 p.m.                                  | 29                                 | 10 | 34  | 1                         |
| 4:00 p.m.                                  | 36                                 | 11 | 55  | 1                         |
| 5:00 p.m.                                  | 42                                 | 11 | 67  | 2                         |
| 6:00 p.m.                                  | 53                                 | 12 | 100   | 2                         |
| 7:00 p.m.                                  | 100                                | 13 | 100   | 4                         |
| 8:00 p.m.                                  | 42                                 | 11 | 100   | 5                         |
| 9:00 p.m.                                  | 29                                 | 9  | 29  | 1                         |
| 10:00 p.m.                                 | 30                                 | 8  | 8   | 1                         |
| 11:00 p.m.                                 | 40                                 | 3  | _   | 0                         |

<sup>\*</sup> Subset of database

### Land Use: 720 Medical-Dental Office Building

### Land Use Description

A medical-dental office building is a facility that provides diagnoses and outpatient care on a routine basis, but is unable to provide prolonged in-house medical and surgical care. One or more private physicians or dentists generally operate this type of facility. Clinic (Land Use 630) is a related use.

### **Database Description**

The database consisted of a mix of urban and suburban sites. Parking demand rates at the suburban sites were similar to those at urban sites and therefore the data were combined and analyzed together.

Average parking supply ratio: 3.9 spaces per 1,000 sq. ft. GFA (11 study sites).

The two study sites with weekend parking demand observations had Saturday peak demand rates 18 and 25 percent less than the weekday peak demand rates for the same study sites.

The following table presents the time-of-day distribution of parking demand, based on data from sites with at least five hours of continuous count data.

| Based on Vehicles per<br>1,000 sq. ft. GFA | Weekday Data           |                        |  |  |
|--|------------------------|------------------------|--|--|
| Hour Beginning                             | Percent of Peak Period | Number of Data Points* |  |  |
| 12:00-4:00 a.m.                            | _                      | 0                      |  |  |
| 5:00 a.m.                                  | _                      | 0                      |  |  |
| 6:00 a.m.                                  | _                      | 0                      |  |  |
| 7:00 a.m.                                  | 15                     | 2                      |  |  |
| 8:00 a.m.                                  | 49                     | 2                      |  |  |
| 9:00 a.m.                                  | 84                     | 7                      |  |  |
| 10:00 a.m.                                 | 100                    | 8                      |  |  |
| 11:00 a.m.                                 | 100                    | 8                      |  |  |
| 12:00 p.m.                                 | 88                     | 8                      |  |  |
| 1:00 p.m.                                  | 79                     | 8                      |  |  |
| 2:00 p.m.                                  | 86                     | 7                      |  |  |
| 3:00 p.m.                                  | 96                     | 7                      |  |  |
| 4:00 p.m.                                  | 91                     | 6                      |  |  |
| 5:00 p.m.                                  | 72                     | 1                      |  |  |
| 6:00 p.m.                                  | _                      | 0                      |  |  |
| 7:00 p.m.                                  | _                      | 0                      |  |  |
| 8:00 p.m.                                  | _                      | 0                      |  |  |
| 9:00 p.m.                                  | _                      | 0                      |  |  |
| 10:00 p.m.                                 | _                      | 0                      |  |  |
| 11:00 p.m.                                 |                        | 0                      |  |  |

<sup>\*</sup> Subset of database

Future studies should include data on the number of doctors working at a study site.

### Study Sites/Years

Canada:

Coquitlam, BC (1992)