



**STONEFIELD**  
engineering & design

November 15, 2016

**Revised: May 12, 2017**

The Township of South Orange Village  
Zoning Board of Adjustment  
76 South Orange Avenue, Suite 302  
South Orange, New Jersey 07079

**RE: Traffic & Parking Assessment Report  
Proposed Restaurant with Outdoor Seating  
Block 1007, Lot 25  
101 South Orange Avenue  
Township of South Orange Village, Essex County, New Jersey  
SE&D Job No. S-16134**

Dear Board Members:

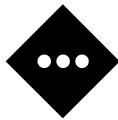
Stonefield Engineering and Design, LLC ("Stonefield") has prepared this analysis to examine the potential traffic and parking impacts of the proposed restaurant on the adjacent roadway network. Inclusive within this letter report is an analyses of the adequacy of parking for the proposed restaurant utilizing the Township's Ordinance requirements and industry standard publications such as the Institute of Transportation Engineers' (ITE) Parking Generation, 4<sup>th</sup> Edition and the Urban Land Institute's (ULI) Shared Parking, 2<sup>nd</sup> Edition. This analysis provides a comprehensive examination regarding the adequacy of off-street private and public and on-street public parking spaces that could be utilized by users of the restaurant, and of vehicles displaced per the executed leasing agreements for the Village Hall parking spaces between the Township and the proposed restaurant.

The subject property is located at the northeast quadrant of the intersection of South Orange Avenue, Scotland Road, and Valley Street in the Township of South Orange Village, Essex County, New Jersey. The site location is illustrated on appended **Figure I**. The subject property is designated as Block 1007, Lot 25 as depicted on the Township of South Orange Village Tax Map. The site has approximately 100 feet of frontage along South Orange Avenue and approximately 210 feet of frontage along Scotland Road. The existing site is presently developed with a two-story building and was previously occupied by administrative offices of the Township of South Orange Village. Under the proposed development plan, a 283-square-foot addition to the existing building would be constructed to provide a 12,692-square-foot restaurant with an additional 3,788-square-foot outdoor area. Vehicular access to the site would be maintained via one (1) full-movement driveway along Scotland Road and cross-access to the Village Hall Lot (Parking Lot 4) located on the adjacent property to the north (Block 1007, Lot 26) would be maintained.

Presently, six (6) parking spaces are provided on the subject property. Under the proposed development plan, four (4) parking spaces would be provided on the subject property and a valet service would be provided. Additionally, the subject property has an exclusive unlimited easement with the Township for 37 parking spaces within the Village Hall Lot (Block 1007, Lot 26). On Friday and Saturday, the easement becomes an exclusive easement for all 74 parking spaces within the Village Hall Lot after 6:00 p.m.

#### **Existing Condition**

The subject property is located along the northeast quadrant of the intersection of South Orange Avenue with Scotland Road/Valley Street in the Township of South Orange, Essex County, New Jersey. The subject property is designated as Block 1007, Lot 25 as depicted on the Township of South Orange Village Tax Map. The



site has approximately 100 feet of frontage along South Orange Avenue and approximately 210 feet of frontage along Scotland Road. Land uses in the area are a mix of commercial and residential.

South Orange Avenue (County Route 510) is classified as an Urban Principal Arterial roadway with a general east-west orientation and is under the jurisdiction of Essex County. Along the site frontage, the roadway provides one (1) lane of travel in each direction with additional auxiliary lanes provided at key intersections. South Orange Avenue has a posted speed limit of 35 mph. Along the site frontage, curb and sidewalk are provided along both sides of the roadway, shoulders are not provided, and metered on-street parking is provided to the east and west of the subject site. The pavement surface and roadway striping appear to be in good condition. South Orange Avenue provides access throughout Essex County for residential and commercial uses along its length.

Scotland Road (County Route 638) is classified as an Urban Minor Arterial roadway with a general north-south orientation and is under the jurisdiction of Essex County. Along the site frontage, the roadway provides one (1) lane of travel in each direction with additional auxiliary lanes provided at key intersections. Scotland Road has a posted speed limit of 25 mph. Along the site frontage, curb and sidewalk are provided along both sides of the roadway, shoulders are not provided, and on-street parking is not permitted. The pavement surface and roadway striping appear to be in good condition. Scotland Road provides access throughout Essex County for residential and commercial uses along its length. South of South Orange Avenue, Scotland Road becomes Valley Street.

South Orange Avenue, Scotland Avenue, and Valley Street intersect to form a four (4)-leg signalized intersection. The eastbound approach of South Orange Avenue provides one (1) exclusive left-turn lane, one (1) exclusive through lane, and one (1) shared through/right-turn lane. The westbound approach of South Orange Avenue provides one (1) exclusive left-turn lane, one (1) exclusive through lane, and one (1) exclusive right-turn lane. The northbound and southbound approaches of Valley Street and Scotland Road each provide one (1) exclusive left-turn lane, one (1) exclusive through lane, and one (1) exclusive right-turn lane. Crosswalks and pedestrian signal heads are provided across all legs of the intersection.

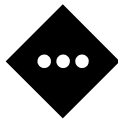
### **Trip Generation**

Trip generation projections for the proposed restaurant were prepared utilizing the Institute of Transportation Engineers' (ITE) Trip Generation Manual, 9<sup>th</sup> Edition. Trip generation rates associated with Land Use 931 "Quality Restaurant" were cited for the proposed 12,692-square-foot restaurant. Note that for Land Use 931, ITE states that for the locations studied within their dataset, "outdoor seating area is not included in the overall gross floor area." As such, the outdoor seating area is not considered to determine trip generation. **Table I** provides the weekday evening, Saturday evening, and Sunday midday peak-hour trip generation volumes associated with the proposed development. As a revision from the previous letter report, the calculation for square-footage for the restaurant now includes the top floor which is to be utilized for events and meetings. As such, the trip generation increased slightly to the values shown below in **Table I**.

**TABLE I – PROPOSED TRIP GENERATION**

| Land Use                                 | Weekday Evening<br>Peak Hour |      |       | Saturday Evening<br>Peak Hour |      |       | Sunday Midday<br>Peak Hour |      |       |
|------------------------------------------|------------------------------|------|-------|-------------------------------|------|-------|----------------------------|------|-------|
|                                          | Enter                        | Exit | Total | Enter                         | Exit | Total | Enter                      | Exit | Total |
| 12,692 SF Restaurant<br>ITE Land Use 931 | 71                           | 43   | 114   | 81                            | 56   | 137   | 67                         | 39   | 106   |

As indicated in **Table I**, the proposed development is projected to generate 114 new trips during the weekday evening peak hour, 137 new trips during the Saturday evening peak hour, and 106 new trips during the Sunday midday peak hour. It is important to note that restaurants similar to the proposed development typically experience a trip generation peak outside of the roadway network peak hour. Typically, the peak restaurant trip



generation on weeknights and Saturday occurs later in the evening. As such, the surrounding roadways would not be at capacity during the restaurant peak hour, and the proposed development is not anticipated to significantly impact the traffic operations of the adjacent roadway network.

### **Site Circulation**

A review was conducted of the proposed restaurant using the Site Plan prepared by Bohler Engineering, dated May 20, 2016. In completing this review, particular attention was focused on the site access and circulation.

Access to the site is proposed via the existing full-movement driveway along Scotland Road. Under the proposed development plan, cross-access between the existing site and the Village Hall Lot directly to the north of the site would be maintained. A valet pick-up/drop-off area would be provided in the northerly portion of the site adjacent to the on-site parking and the Village Hall Lot. The valet area is designed so to not block the public right-of-way along Scotland Road and could accommodate a queue of six (6) vehicles. Circulation throughout the site would be provided via a 22-foot-wide two-way drive aisle. These dimensions are in accordance with the Township of South Orange Village Ordinance and are suitable to accommodate the anticipated parking maneuvers on site.

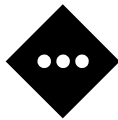
### **Parking Requirements**

For restaurant uses, the Township of South Orange Village Ordinance requires one (1) parking space be provided per 50 square feet of net floor area devoted to patron use. For the proposed restaurant, which provides 7,140 square feet of indoor space for patron use and 2,910 square feet of outdoor space for patron use, this equates to 201 required parking spaces. The proposed development plan provides four (4) parking spaces on the subject property, and the subject property presently holds an exclusive unlimited easement for 34 parking spaces within a portion of the Village Hall Lot at all times, which becomes an exclusive parking easement for all 73 parking spaces within Village Hall Lot after 6:00 p.m. on Friday and Saturday evenings. As such, there are 38 spaces dedicated to the proposed restaurant during the hours of operation on Monday through Thursday and 77 spaces dedicated to the proposed restaurant on Friday and Saturday evenings.

### **Future Dedicated Parking Supply**

In order to address the projected parking demand of the proposed restaurant, the applicant has prepared a comprehensive parking plan for the subject site. The plan utilizes a combination of on-site parking, off-site parking, municipal parking lots, available on-street parking, and valet services to provide a parking supply sufficient to support the anticipated demand. As part of its parking operations, the restaurant would have dedicated parking areas that are subject to the fluctuations of parking supply and demand of other land uses in South Orange in the site vicinity. Specifically, the dedicated off-street parking supply associated with the proposed development is as follows:

1. Four (4) parking spaces on-site and 34 parking spaces off-site during all operating times via a parking easement on the adjacent property (Village Hall Lot), for a total of 38 parking spaces.
2. On Friday and Saturday evenings after 6:00 p.m., the site would provide 73 spaces off-site on the Village Hall Lot via a parking easement, in addition to the four (4) on-site spaces, for a total of 77 parking spaces.
3. On Friday and Saturday evenings from 5:30 p.m. to 11:30 p.m., the restaurant would park a total of 30 vehicles within the parking lots associated with 20 Valley Road and 61 First Street via an agreement in place with the owner(s) of these properties.
4. On Monday through Friday from 6:00 p.m. to 11:00 p.m. and on Saturday and Sunday from 12:00 noon to 11:00 p.m., the restaurant would park vehicles within the gated lot located on Block 1007, Lot 24 via an agreement in place with the owner(s) of the lot.



Valet service would be provided for the proposed restaurant, which would increase the maximum number of parked vehicles on the subject site, the adjacent Village Hall Lot, and the adjacent gated parking lot (Block 1007, Lot 24). A review was conducted of the Parking Exhibit prepared by Bohler Engineering, dated March 6, 2017, which illustrates the valet parking configuration at the Village Hall Lot. Based on the configuration, the layout would provide additional capacity for parking as follows:

1. On Monday through Thursday evenings and during the Sunday midday period, the valet service would increase the parking capacity of the adjacent Village Hall Lot and gated lot by 19 spaces, for a total of 75 parking spaces between the subject site, Village Hall Lot, and gated lot.
2. On Friday and Saturday during the peak hours of operation, the valet service would increase the parking capacity of the Village Hall Lot and gated lot by 30 spaces, for a total of 125 parking spaces between the subject site, Village Hall Lot, and gated lot.

**Table 2** provides a summary of the dedicated off-street parking supply on a weekday evening, Friday evening, Saturday evening, and Sunday midday.

**TABLE 2 – DEDICATED OFF-PARKING SUPPLY COMPARISON BY DAY**

| <b>Parking Supply Source</b>           | <b>Weekday Evening Parking Supply</b> | <b>Friday Evening Parking Supply</b> | <b>Saturday Evening Parking Supply</b> | <b>Sunday Midday Parking Supply</b> |
|----------------------------------------|---------------------------------------|--------------------------------------|----------------------------------------|-------------------------------------|
| On-Site Striped Parking                | 4                                     | 4                                    | 4                                      | 4                                   |
| Village Hall Striped Parking           | 34                                    | 73                                   | 73                                     | 34                                  |
| First Street Parking Lots              | --                                    | 30                                   | 30                                     | --                                  |
| Gated Lot Striped Parking              | 18                                    | 18                                   | 18                                     | 18                                  |
| Additional Spaces from Valet Service   | 19                                    | 30                                   | 30                                     | 19                                  |
| <b>Total Off-Street Parking Supply</b> | <b>75</b>                             | <b>155</b>                           | <b>155</b>                             | <b>75</b>                           |

### **Projected Parking Demand**

Parking demand projections for the proposed restaurant were prepared utilizing three (3) different methodologies to provide for a comprehensive analyses of the anticipated parking demand and to understand the true parking supply provided within public and private parking lots within the site vicinity. Parking demand calculations utilized the ITE's Parking Generation, 4<sup>th</sup> Edition, ULI's Shared Parking, 2<sup>nd</sup> Edition, and the Township's own parking ordinance.

As restaurants typically do not experience a sustained peak parking demand for multiple consecutive hours, time-of-day factors provided within ULI's Shared Parking, 2<sup>nd</sup> Edition for the Fine/Casual Dining land use were utilized to determine the peak parking demand at one (1)-hour intervals throughout the evening. Specifically, the projected parking demand throughout the weekday evening, Friday evening, Saturday evening, and the Sunday midday time periods was analyzed and adjusted in order to account for the variation in parking demand throughout each time period. These time periods represent the peak parking demand of the proposed use.

### **Parking Demand by Square Footage**

Parking demand for the proposed restaurant was calculated using the gross square footage of the building as the independent variable. Average peak parking generation rates for Land Use 931 "Quality Restaurant" within ITE's Parking Generation, 4<sup>th</sup> Edition were cited for the proposed restaurant. For calculating peak parking



demand, Parking Generation utilizes the gross floor area of the building, and does not consider exterior unroofed areas and unenclosed roofed-over spaces. As such, the gross indoor floor area (12,692 square feet) was utilized for calculations. Based on rates provided by ITE, the projected peak parking demand of the proposed restaurant on a typical weekday evening is **134 vehicles**. The projected peak parking demand of the proposed restaurant on both Friday evening and Saturday evening is **208 vehicles**. The projected peak parking demand on Sunday during the midday is **125 vehicles**. Note that the difference between Friday and Saturday evening peak parking generation rates is negligible (16.41 vehicles per 1,000 square feet vs. 16.40 vehicles per 1,000 square feet, respectively), and that parking generation rates are not provided for Sundays. Thus the overall Saturday parking generation rate was used for the Sunday midday time period and time-of-day factors were applied.

It should also be noted that the total square footage used in this analyses includes the cocktail area and the event area. Because of the unique interaction between the cocktail area and event area, both areas would not be fully occupied simultaneously. However, the floor area of both areas was included within the calculations to provide a conservative analysis and be consistent with ITE methodology.

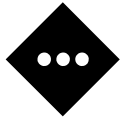
#### Parking Demand by Number of Seats

Parking demand for the proposed restaurant was also calculated utilizing the number of patron seats within the restaurant as the independent variable. Average peak parking generation rates for Land Use 931 "Quality Restaurant" within ITE's Parking Generation, 4<sup>th</sup> Edition were cited for the proposed restaurant. As shown on the architectural plans, the total number of patron seats is 443 seats. This number excludes seats located in kitchen or office space, and considers that the upstairs cocktail area and event area would not be utilized simultaneously and therefore only utilizes higher seating quantity associated with the event area seating values. As inclusion of outdoor seating for analyses is not directly specified by ITE, the total number of seats conservatively includes outdoor dining and outdoor beer garden areas, even though these areas are seasonal in nature and would not operate on a year-round basis.

It is important to note that parking generation data provided by ITE for seats during the weekday evening peak period is limited in data points, and amongst those data points, the variance is 52%. Within Parking Generation, ITE specifically warns that "users of this report should exercise caution when utilizing data that are based on small numbers of data points or when quality of data indices are outside reliable ranges." Based on conversations with restaurant operators, weekday evenings typically generate fewer patrons and parked vehicles than a Friday or Saturday evening, not equal amounts of parking as the limited dataset suggests. As such, the weekday peak parking demand by seats was calculated as a proportion of the peak weekend parking demand by seats. Referencing the parking demand calculated by square footage, weekday parking demand is projected to be 65% of weekend parking demand. Based on rates provided by ITE, the projected peak parking demand of the proposed restaurant on a typical weekday evening is **141 vehicles**. The projected peak parking demand of the proposed restaurant on Friday evening is **218 vehicles**. The projected peak parking demand of the proposed restaurant on Saturday evening is **204 vehicles**. The projected peak parking demand on Sunday during the midday is **123 vehicles**. Note that parking generation rates are not provided for Sundays, thus the overall Saturday parking generation rate was used for the Sunday midday time period and time-of-day factors were applied.

#### Parking Demand by Ordinance

Parking demand for the proposed restaurant was also calculated using the Township's Ordinance requirement of 201 seats as the peak demand value. The Ordinance requirement represents a peak parking supply to be satisfied by the proposed restaurant to accommodate the peak parking demand, and does not take into account times of day or days of the week when parking demand is not projected to approach its peak value. As such, the ordinance requirement was adjusted to account for hourly and daily variation in demand utilizing ULI's time-of-day factors and the weekday/weekend day-of-week factors calculated using ITE data (i.e. weekday peak is 65% of weekend peak). Based on the adjusted Ordinance requirements, the projected peak parking demand of the proposed restaurant on a typical weekday evening is **131 vehicles**. The projected peak parking



demand of the proposed restaurant on both Friday and Saturday evening is **201 vehicles**. The projected peak parking demand on Sunday during the midday is **121 vehicles**.

**Tables 3** through **6** provides a summary of the parking demand for each analysis methodology during each of the peak time periods studied utilizing ULI's time-of-day factors.

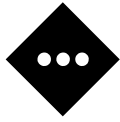


**TABLE 3 – SUMMARY OF WEEKDAY EVENING PARKING DEMAND**

| Time of Day | Demand by<br>Square Footage | Demand by<br>Seats | Demand by<br>Ordinance |
|-------------|-----------------------------|--------------------|------------------------|
| 5:00 p.m.   | 106                         | 111                | 103                    |
| 6:00 p.m.   | 129                         | 135                | 125                    |
| 7:00 p.m.   | 134                         | 141                | 131                    |
| 8:00 p.m.   | 134                         | 141                | 131                    |
| 9:00 p.m.   | 134                         | 141                | 131                    |
| 10:00 p.m.  | 129                         | 135                | 125                    |
| 11:00 p.m.  | 103                         | 108                | 100                    |
| Midnight    | 39                          | 41                 | 38                     |

**TABLE 4 – SUMMARY OF FRIDAY EVENING PARKING DEMAND**

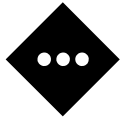
| Time of Day | Demand by<br>Square Footage | Demand by<br>Seats | Demand by<br>Ordinance |
|-------------|-----------------------------|--------------------|------------------------|
| 5:00 p.m.   | 137                         | 144                | 133                    |
| 6:00 p.m.   | 190                         | 199                | 184                    |
| 7:00 p.m.   | 199                         | 208                | 192                    |
| 8:00 p.m.   | 208                         | 218                | 201                    |
| 9:00 p.m.   | 190                         | 199                | 184                    |
| 10:00 p.m.  | 190                         | 199                | 184                    |
| 11:00 p.m.  | 186                         | 194                | 180                    |
| Midnight    | 105                         | 108                | 100                    |

**TABLE 5 – SUMMARY OF SATURDAY EVENING PARKING DEMAND**

| Time of Day | Demand by<br>Square Footage | Demand by<br>Seats | Demand by<br>Ordinance |
|-------------|-----------------------------|--------------------|------------------------|
| 5:00 p.m.   | 137                         | 135                | 133                    |
| 6:00 p.m.   | 190                         | 187                | 184                    |
| 7:00 p.m.   | 199                         | 196                | 192                    |
| 8:00 p.m.   | 208                         | 204                | 201                    |
| 9:00 p.m.   | 190                         | 187                | 184                    |
| 10:00 p.m.  | 190                         | 187                | 184                    |
| 11:00 p.m.  | 186                         | 182                | 180                    |
| Midnight    | 104                         | 102                | 100                    |

**TABLE 6 – SUMMARY OF SUNDAY MIDDAY PARKING DEMAND**

| Time of Day | Demand by<br>Square Footage | Demand by<br>Seats | Demand by<br>Ordinance |
|-------------|-----------------------------|--------------------|------------------------|
| 10:00 a.m.  | 28                          | 28                 | 27                     |
| 11:00 a.m.  | 55                          | 54                 | 53                     |
| 12:00 a.m.  | 116                         | 115                | 112                    |
| 1:00 p.m.   | 125                         | 123                | 121                    |
| 2:00 p.m.   | 108                         | 106                | 104                    |
| 3:00 p.m.   | 103                         | 101                | 100                    |
| 4:00 p.m.   | 103                         | 101                | 100                    |



As shown in Tables 3 through 6, the parking demand calculated via square footage of the restaurant reflects the highest rate of parking demand for each of the peak time periods.

### **Existing Parking Utilization**

Parking utilization counts were conducted to determine the existing parking utilization at the subject site and at public and private parking lots in the nearby vicinity during peak periods. Specifically, off-street parking utilization counts were conducted at the following locations:

1. On-site Parking Lot (Block 1007, Lot 25);
2. Village Hall Lot (Village Parking Lot 4 – Block 1007, Lot 26);
3. Gated Parking Lot (Access via Village Hall Lot – Block 1007, Lot 24);
4. Library Lot (Village Parking Lot 2 – Block 1005, Lot 2); and,
5. Taylor Place Lot (Village Parking Lot 1 – Block 1006, Lot 3).

Additionally, on-street parking utilization counts were conducted at the following locations:

1. South Orange Avenue between Sloan Street and Prospect Street;
2. Vose Street between Taylor Place and South Orange Avenue;
3. Village Plaza; and,
4. 1<sup>st</sup> Street between Valley Street and Academy Street.

Off-street and on-street parking utilization counts were conducted on the following dates and times:

1. Friday, November 4, 2016, from 6:00 p.m. to 9:00 p.m.;
2. Saturday, November 4, 2016, from 6:00 p.m. to 9:00 p.m.;
3. Thursday, December 15, 2016, from 6:00 p.m. to 9:00 p.m.; and,
4. Sunday, February 5, 2017, from 11:00 a.m. to 2:00 p.m.

Additionally, Stonefield reached out to the South Orange Parking Authority for additional parking utilization data for inclusion within this report, specifically to determine parking variation between summer and winter months. Evening count data for either summer or winter months was not available from the Parking Authority, as such, the data collected by Stonefield was utilized in this analysis. Also it is noted that the lots located most convenient to the South Orange Performing Arts Center (SOPAC) (Lots 3, 9, 10, and 11) were not included as part of this study. Impacts from SOPAC events would likely present minimal differences in the data collected.

### **Parking Supply**

The available off-street and on-street parking observed during the parking utilization counts was added to the dedicated off-street parking spaces provided in Table 2 for each time period in order to determine a total parking supply. As there are a number of vehicles parked on-site, in the Village Hall Lot, and within the gated lot, the total parking supply was reduced by the number of vehicles that would be displaced by the dedicated off-street parking. **Tables 7 through 10** provide the parking supply available during each of the peak time periods after factoring in relocating displaced vehicles within the dedicated off-street parking areas.

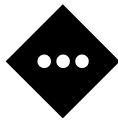


**TABLE 7 – PARKING SUPPLY – WEEKDAY EVENING**

|           | Dedicated Off-Street Spaces<br>(Includes Valet) | Available Public Spaces | Displaced Vehicles | Parking Supply |
|-----------|-------------------------------------------------|-------------------------|--------------------|----------------|
| 6:00 p.m. | 75                                              | 112                     | -44                | 143            |
| 6:30 p.m. | 75                                              | 126                     | -47                | 154            |
| 7:00 p.m. | 75                                              | 132                     | -39                | 168            |
| 7:30 p.m. | 75                                              | 111                     | -41                | 145            |
| 8:00 p.m. | 75                                              | 114                     | -34                | 155            |
| 8:30 p.m. | 75                                              | 132                     | -24                | 183            |
| 9:00 p.m. | 75                                              | 145                     | -24                | 196            |

**TABLE 8 – PARKING SUPPLY – FRIDAY EVENING**

|           | Dedicated Off-Street Spaces<br>(Includes Valet) | Available Public Spaces | Displaced Vehicles | Parking Supply |
|-----------|-------------------------------------------------|-------------------------|--------------------|----------------|
| 6:00 p.m. | 155                                             | 105                     | -35                | 225            |
| 6:30 p.m. | 155                                             | 100                     | -40                | 215            |
| 7:00 p.m. | 155                                             | 98                      | -33                | 220            |
| 7:30 p.m. | 155                                             | 84                      | -29                | 210            |
| 8:00 p.m. | 155                                             | 74                      | -30                | 199            |
| 8:30 p.m. | 155                                             | 83                      | -31                | 207            |
| 9:00 p.m. | 155                                             | 101                     | -27                | 229            |

**TABLE 9 – PARKING SUPPLY – SATURDAY EVENING**

|           | Dedicated Off-Street Spaces<br>(Includes Valet) | Available Public Spaces | Displaced Vehicles | Parking Supply |
|-----------|-------------------------------------------------|-------------------------|--------------------|----------------|
| 6:00 p.m. | 155                                             | 160                     | -29                | 286            |
| 6:30 p.m. | 155                                             | 157                     | -32                | 280            |
| 7:00 p.m. | 155                                             | 155                     | -26                | 284            |
| 7:30 p.m. | 155                                             | 138                     | -28                | 265            |
| 8:00 p.m. | 155                                             | 133                     | -24                | 264            |
| 8:30 p.m. | 155                                             | 130                     | -26                | 259            |
| 9:00 p.m. | 155                                             | 134                     | -28                | 261            |

**TABLE 10 – PARKING SUPPLY – SUNDAY MIDDAY**

|            | Dedicated Off-Street Spaces<br>(Includes Valet) | Available Public Spaces | Displaced Vehicles | Parking Supply |
|------------|-------------------------------------------------|-------------------------|--------------------|----------------|
| 11:00 a.m. | 75                                              | 174                     | -14                | 235            |
| 11:30 a.m. | 75                                              | 175                     | -15                | 235            |
| 12:00 p.m. | 75                                              | 172                     | -15                | 232            |
| 12:30 p.m. | 75                                              | 177                     | -16                | 236            |
| 1:00 p.m.  | 75                                              | 173                     | -16                | 232            |
| 1:30 p.m.  | 75                                              | 132                     | -15                | 192            |
| 2:00 p.m.  | 75                                              | 116                     | -15                | 176            |



### **Parking Supply & Demand Comparison**

The parking supply during the peak periods was compared to the projected demand for the proposed restaurant. The supply was compared to demand calculated by square feet, seats, and ordinance as provided in Tables 3 through 6. **Tables 11 through 14** provide the supply and demand comparison for each of the peak periods.

Based on the results of the supply and demand comparison, the parking demand would not exceed supply on weekday evenings, Saturday evenings, or during the Sunday midday period, and would only exceed the parking supply during a limited portion of the Friday evening peak period. On Friday evenings, parking demand calculated using square footage of the restaurant and parking demand calculated using the Township's Ordinance indicate demand exceeding supply only during the 8:00 p.m. interval. Using parking demand calculated by number of seats, supply would be exceeded during the 7:30 p.m., 8:00 p.m., and 8:30 p.m. intervals.

It is important to note that the on-street and off-street parking areas surveyed do not represent the totality of the Downtown South Orange Village parking supply. Additionally, this conservative analysis assumes floor area associated with the second-floor banquet area is calculated to generate parked vehicles at the same rate as the restaurant space on the ground floor, and the square footage of both the cocktail space and the event space were included even though they will not be fully occupied simultaneously. As demand by square footage and demand by Ordinance both include the cocktail area and event space, these demand rates are conservative in nature, and there would still be public parking available in the nearby vicinity at all times for public parking after the construction and opening of the proposed restaurant. Further, outdoor seating for the proposed restaurant accounts for 107 of the 443 seats and is seasonal in nature. As the parking demand by seats includes both indoor and outdoor seating, the parking demand calculations overestimate the number of vehicles during the colder seasons of the year when outdoor seating is not in use.

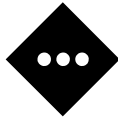


**TABLE 11 – PARKING SUPPLY – WEEKDAY EVENING**

|           | <b>Parking Supply</b> | <b>Demand by Square Footage</b> | <b>Demand by Seats</b> | <b>Demand by Ordinance</b> |
|-----------|-----------------------|---------------------------------|------------------------|----------------------------|
| 6:00 p.m. | 143                   | 129                             | 135                    | 125                        |
| 6:30 p.m. | 154                   | 132                             | 138                    | 128                        |
| 7:00 p.m. | 168                   | 134                             | 141                    | 131                        |
| 7:30 p.m. | 145                   | 134                             | 141                    | 131                        |
| 8:00 p.m. | 155                   | 134                             | 141                    | 131                        |
| 8:30 p.m. | 183                   | 134                             | 141                    | 131                        |
| 9:00 p.m. | 196                   | 134                             | 141                    | 131                        |

**TABLE 12 – PARKING SUPPLY – FRIDAY EVENING**

|           | <b>Parking Supply</b> | <b>Demand by Square Footage</b> | <b>Demand by Seats</b> | <b>Demand by Ordinance</b> |
|-----------|-----------------------|---------------------------------|------------------------|----------------------------|
| 6:00 p.m. | 225                   | 190                             | 199                    | 184                        |
| 6:30 p.m. | 215                   | 195                             | 204                    | 188                        |
| 7:00 p.m. | 220                   | 199                             | 208                    | 192                        |
| 7:30 p.m. | 210                   | 204                             | 213                    | 197                        |
| 8:00 p.m. | 199                   | 208                             | 218                    | 201                        |
| 8:30 p.m. | 207                   | 199                             | 209                    | 193                        |
| 9:00 p.m. | 229                   | 190                             | 199                    | 184                        |

**TABLE 13 – PARKING SUPPLY – SATURDAY EVENING**

|           | <b>Parking Supply</b> | <b>Demand by Square Footage</b> | <b>Demand by Seats</b> | <b>Demand by Ordinance</b> |
|-----------|-----------------------|---------------------------------|------------------------|----------------------------|
| 6:00 p.m. | 286                   | 190                             | 187                    | 184                        |
| 6:30 p.m. | 280                   | 195                             | 192                    | 188                        |
| 7:00 p.m. | 284                   | 199                             | 196                    | 192                        |
| 7:30 p.m. | 265                   | 204                             | 200                    | 197                        |
| 8:00 p.m. | 264                   | 208                             | 204                    | 201                        |
| 8:30 p.m. | 259                   | 199                             | 196                    | 193                        |
| 9:00 p.m. | 261                   | 190                             | 187                    | 184                        |

**TABLE 14 – PARKING SUPPLY – SUNDAY MIDDAY**

|            | <b>Parking Supply</b> | <b>Demand by Square Footage</b> | <b>Demand by Seats</b> | <b>Demand by Ordinance</b> |
|------------|-----------------------|---------------------------------|------------------------|----------------------------|
| 11:00 a.m. | 235                   | 55                              | 54                     | 53                         |
| 11:30 a.m. | 235                   | 86                              | 85                     | 83                         |
| 12:00 p.m. | 232                   | 116                             | 115                    | 112                        |
| 12:30 p.m. | 236                   | 121                             | 119                    | 117                        |
| 1:00 p.m.  | 232                   | 125                             | 123                    | 121                        |
| 1:30 p.m.  | 192                   | 117                             | 115                    | 113                        |
| 2:00 p.m.  | 176                   | 108                             | 106                    | 104                        |



## **Conclusions**

This report was prepared to examine the potential traffic and parking impacts of the proposed 12,692-square-foot restaurant. The analysis findings, which have been based on industry standard guidelines, indicate that the proposed development would not have a significant impact on the traffic operations of the adjacent roadway network. The analysis conservatively accounted for existing vehicles parked on-site, in the Village Hall Lot, or within the gated parking lot would be displaced to other nearby lots as opposed to being located in other areas of Downtown or South Orange Village. The parking demand projections additionally do not take into account the proximity to transit, the walkable nature of the surrounding Downtown area, nor the rise of ride-sharing via apps such as Uber and Lyft. As such, the parking demand calculations are conservative in nature, and the parking supply is not expected to reach capacity as a result of the proposed restaurant development. Valet service on-site and employee parking on Friday and Saturday nights at the off-site locations along 1<sup>st</sup> Street further help reduce the parking impact on-site and within South Orange Village.

If you have any comments regarding the above information, please contact our office.

Best regards,

Charles D. Olivo, PE, PTOE  
**Stonefield Engineering and Design, LLC**

Matthew J. Seckler, PE, PTOE, PP  
**Stonefield Engineering and Design, LLC**



not to scale

**Legend**

- 1 - Taylor Place Lot
- 2 - Library Lot
- 4 - Village Hall Lot
- A - 20 Valley Road Lot
- B - 61 First Street Lot



**STONEFIELD**  
engineering & design

Proposed Restaurant  
101 South Orange Avenue  
South Orange Village, Essex County, New Jersey  
Traffic & Parking Assessment Report

**FIGURE 1**  
Parking Study Area Map

Date: Thursday, December 15, 2016

Counter: TF

## Parking Utilization Data Weekday Evening

|  |         |                       | On-Site Parking |    | Block 1007, Lot 26<br>Village Hall Lot |    | Block 1007, Lot 24<br>Gae'd Lot | Block 1005, Lot 2<br>Library Lot | Block 1006, Lot 3<br>Taylor Place Lot | On-Street Parking along South Orange Avenue |   |                           |   |                               |    |           |    | On-Street Parking along Yose Avenue between<br>Taylor Place & South Orange Avenue |    |            |   | On-Street Parking along 1st Street between<br>Valley Street and Academy Street |  |                |  |
|--|---------|-----------------------|-----------------|----|----------------------------------------|----|---------------------------------|----------------------------------|---------------------------------------|---------------------------------------------|---|---------------------------|---|-------------------------------|----|-----------|----|-----------------------------------------------------------------------------------|----|------------|---|--------------------------------------------------------------------------------|--|----------------|--|
|  |         |                       |                 |    |                                        |    |                                 |                                  |                                       | Sloan Avenue-Yose Avenue                    |   | Yose Avenue-Valley Street |   | Valley Street-Prospect Street |    |           |    |                                                                                   |    |            |   |                                                                                |  |                |  |
|  |         | Front of Lot          | Rear of Lot     |    |                                        |    |                                 |                                  |                                       | Eastbound                                   |   | Westbound                 |   | Eastbound                     |    | Westbound |    | Northbound                                                                        |    | Southbound |   | Southerly Side                                                                 |  | Northerly Side |  |
|  | Time    | Spaces in Lot/Section | 6               | 39 | 34                                     | 18 | 108                             | 57                               |                                       | 2                                           | 3 | 3                         | 7 | 14                            | 14 | 15        | 10 | 7                                                                                 | 10 | 9          | 8 | 9                                                                              |  |                |  |
|  | 6:00 PM | Spaces Occupied:      | 5               | 8  | 23                                     | 16 | 55                              | 40                               |                                       | 2                                           | 3 | 3                         | 4 | 12                            | 14 | 15        | 9  | 4                                                                                 | 8  |            |   | 9                                                                              |  |                |  |
|  | 6:30 PM | Spaces Occupied:      | 5               | 8  | 23                                     | 19 | 44                              | 34                               |                                       | 2                                           | 3 | 3                         | 7 | 11                            | 12 | 14        | 10 | 6                                                                                 | 9  |            |   | 9                                                                              |  |                |  |
|  | 7:00 PM | Spaces Occupied:      | 4               | 6  | 20                                     | 15 | 32                              | 43                               |                                       | 2                                           | 3 | 3                         | 7 | 10                            | 12 | 15        | 10 | 4                                                                                 | 10 |            |   | 9                                                                              |  |                |  |
|  | 7:30 PM | Spaces Occupied:      | 2               | 9  | 27                                     | 12 | 49                              | 48                               |                                       | 2                                           | 3 | 3                         | 6 | 9                             | 11 | 14        | 10 | 6                                                                                 | 9  |            |   | 8                                                                              |  |                |  |
|  | 8:00 PM | Spaces Occupied:      | 2               | 7  | 21                                     | 11 | 50                              | 46                               |                                       | 2                                           | 3 | 3                         | 5 | 9                             | 10 | 15        | 10 | 6                                                                                 | 9  |            |   | 9                                                                              |  |                |  |
|  | 8:30 PM | Spaces Occupied:      | 1               | 6  | 17                                     | 6  | 48                              | 35                               |                                       | 2                                           | 3 | 3                         | 5 | 7                             | 8  | 15        | 10 | 6                                                                                 | 9  |            |   | 9                                                                              |  |                |  |
|  | 9:00 PM | Spaces Occupied:      | 1               | 6  | 18                                     | 5  | 42                              | 35                               |                                       | 2                                           | 3 | 3                         | 6 | 7                             | 6  | 13        | 9  | 5                                                                                 | 8  |            |   | 8                                                                              |  |                |  |

## Parking Utilization Data Friday Evening

Date: Friday, November 04, 2016

Counter: CR

|  |         |                       | On-Site Parking |    | Block 1007, Lot 26 Village Hall Lot |    | Block 1007, Lot 24 Gae'd Lot | Block 1005, Lot 2 Library Lot | Block 1006, Lot 3 Taylor Place Lot | On-Street Parking along South Orange Avenue |   |                           |   |                               |    |           |    | Village Plaza |    | On-Street Parking along Yose Avenue between Taylor Place & South Orange Avenue |    | On-Street Parking along 1st Street between Valley Street and Academy Street |  |                |  |
|--|---------|-----------------------|-----------------|----|-------------------------------------|----|------------------------------|-------------------------------|------------------------------------|---------------------------------------------|---|---------------------------|---|-------------------------------|----|-----------|----|---------------|----|--------------------------------------------------------------------------------|----|-----------------------------------------------------------------------------|--|----------------|--|
|  |         |                       |                 |    |                                     |    |                              |                               |                                    | Sloan Avenue-Yose Avenue                    |   | Yose Avenue-Valley Street |   | Valley Street-Prospect Street |    |           |    |               |    |                                                                                |    |                                                                             |  |                |  |
|  |         | Front of Lot          | Rear of Lot     |    |                                     |    |                              |                               |                                    | Eastbound                                   |   | Westbound                 |   | Eastbound                     |    | Westbound |    | Northbound    |    | Southbound                                                                     |    | Southerly Side                                                              |  | Northerly Side |  |
|  | Time    | Spaces in Lot/Section | 6               | 39 | 34                                  | 18 | 108                          | 57                            |                                    | 2                                           | 3 | 3                         | 7 | 14                            | 14 | 15        | 10 | 7             | 10 | 7                                                                              | 10 | 9                                                                           |  |                |  |
|  | 6:00 PM | Spaces Occupied:      | 4               | 6  | 19                                  | 6  | 52                           | 29                            |                                    | 2                                           | 3 | 0                         | 2 | 11                            | 10 | 13        | 9  | 6             |    | 6                                                                              | 9  | 8                                                                           |  |                |  |
|  | 6:30 PM | Spaces Occupied:      | 4               | 7  | 22                                  | 7  | 49                           | 34                            |                                    | 2                                           | 3 | 3                         | 3 | 12                            | 12 | 15        | 7  | 7             |    | 7                                                                              | 6  | 6                                                                           |  |                |  |
|  | 7:00 PM | Spaces Occupied:      | 3               | 6  | 18                                  | 6  | 42                           | 37                            |                                    | 2                                           | 3 | 3                         | 7 | 12                            | 12 | 13        | 10 | 6             |    | 6                                                                              | 7  | 7                                                                           |  |                |  |
|  | 7:30 PM | Spaces Occupied:      | 3               | 5  | 16                                  | 5  | 41                           | 47                            |                                    | 2                                           | 3 | 3                         | 7 | 11                            | 14 | 15        | 10 | 7             |    | 7                                                                              | 7  | 8                                                                           |  |                |  |
|  | 8:00 PM | Spaces Occupied:      | 3               | 5  | 17                                  | 5  | 44                           | 53                            |                                    | 2                                           | 3 | 3                         | 7 | 11                            | 14 | 15        | 10 | 6             |    | 6                                                                              | 8  | 9                                                                           |  |                |  |
|  | 8:30 PM | Spaces Occupied:      | 3               | 6  | 17                                  | 5  | 44                           | 50                            |                                    | 2                                           | 3 | 3                         | 6 | 9                             | 10 | 15        | 10 | 6             |    | 6                                                                              | 9  | 9                                                                           |  |                |  |
|  | 9:00 PM | Spaces Occupied:      | 2               | 5  | 15                                  | 5  | 40                           | 39                            |                                    | 2                                           | 3 | 3                         | 6 | 9                             | 8  | 15        | 10 | 7             |    | 7                                                                              | 8  | 8                                                                           |  |                |  |



### Parking Utilization Data

#### Saturday Evening

Date: Saturday, November 05, 2016

Counter: CR

|         | On-Site Parking       | Block 1007, Lot 26<br>Village Hall Lot |             | Block 1007, Lot 24<br>Gated Lot | Block 1005, Lot 2<br>Lenny Lot | Block 1006, Lot 3<br>Taylor Place Lot | On-Street Parking along South Orange Avenue |                           |           |                               |           |            | Village Plaza | On-Street Parking along Yose Avenue between<br>Taylor Place & South Orange Avenue |                | On-Street Parking along 1st Street between<br>Valley Street and Academy Street |   |
|---------|-----------------------|----------------------------------------|-------------|---------------------------------|--------------------------------|---------------------------------------|---------------------------------------------|---------------------------|-----------|-------------------------------|-----------|------------|---------------|-----------------------------------------------------------------------------------|----------------|--------------------------------------------------------------------------------|---|
|         |                       | Front of Lot                           | Rear of Lot | Eastbound                       | Westbound                      | Sean Avenue-Yose Avenue               |                                             | Yose Avenue-Valley Street |           | Valley Street-Prospect Street |           | Northbound |               | Southbound                                                                        | Southerly Side | Northerly Side                                                                 |   |
|         |                       |                                        |             |                                 |                                | Eastbound                             | Westbound                                   | Eastbound                 | Westbound | Eastbound                     | Westbound |            |               |                                                                                   |                |                                                                                |   |
| Time    | Spaces in Lot/Section | 6                                      | 39          | 34                              | 18                             | 57                                    | 2                                           | 3                         | 3         | 7                             | 14        | 14         | 15            | 10                                                                                | 7              | 10                                                                             | 9 |
| 6:00 PM | Spaces Occupied       | 1                                      | 6           | 20                              | 2                              | 13                                    | 2                                           | 3                         | 3         | 5                             | 10        | 7          | 15            | 9                                                                                 | 5              | 4                                                                              | 1 |
| 6:30 PM | Spaces Occupied       | 1                                      | 7           | 22                              | 2                              | 13                                    | 2                                           | 3                         | 3         | 6                             | 9         | 14         | 14            | 9                                                                                 | 5              | 2                                                                              | 2 |
| 7:00 PM | Spaces Occupied       | 1                                      | 6           | 17                              | 2                              | 16                                    | 2                                           | 3                         | 3         | 5                             | 10        | 12         | 15            | 9                                                                                 | 6              | 4                                                                              | 3 |
| 7:30 PM | Spaces Occupied       | 1                                      | 6           | 19                              | 2                              | 27                                    | 2                                           | 3                         | 3         | 5                             | 8         | 7          | 15            | 10                                                                                | 6              | 6                                                                              | 7 |
| 8:00 PM | Spaces Occupied       | 1                                      | 6           | 15                              | 2                              | 29                                    | 2                                           | 2                         | 3         | 5                             | 6         | 7          | 15            | 10                                                                                | 7              | 7                                                                              | 8 |
| 8:30 PM | Spaces Occupied       | 1                                      | 7           | 16                              | 2                              | 28                                    | 2                                           | 3                         | 3         | 5                             | 5         | 10         | 15            | 10                                                                                | 7              | 6                                                                              | 7 |
| 9:00 PM | Spaces Occupied       | 1                                      | 6           | 19                              | 2                              | 29                                    | 2                                           | 3                         | 3         | 5                             | 6         | 4          | 15            | 10                                                                                | 6              | 7                                                                              | 8 |

### Parking Utilization Data Sunday Midday

Date: Sunday, February 05, 2017

Counter: W

|          |                       |   | Block 1007, Lot 26<br>Village Hall Lot |              | Block 1007, Lot 24<br>Garage Lot |                           | Block 1005, Lot 2<br>Library Lot |                            | Block 1006, Lot 3<br>Taylor Place Lot |                               | On-Street Parking along South Orange Avenue |            |    |            |    |                | On-Street Parking along Vista Avenue between<br>Taylor Place & South Orange Avenue |                |  |  | On-Street Parking along 1st Street between<br>Valley Street and Academy Street |  |  |  |
|----------|-----------------------|---|----------------------------------------|--------------|----------------------------------|---------------------------|----------------------------------|----------------------------|---------------------------------------|-------------------------------|---------------------------------------------|------------|----|------------|----|----------------|------------------------------------------------------------------------------------|----------------|--|--|--------------------------------------------------------------------------------|--|--|--|
|          |                       |   | On-Site<br>Parking                     | Front of Lot | Rear of Lot                      | Sloan Avenue-Vista Avenue |                                  | Vista Avenue-Valley Street |                                       | Valley Street-Prospect Street |                                             | Northbound |    | Southbound |    | Southerly Side |                                                                                    | Northerly Side |  |  |                                                                                |  |  |  |
| Time     | Spaces in Lot/Section | 6 | 39                                     | 34           | 18                               | 108                       | 2                                | 3                          | 3                                     | 7                             | 14                                          | 14         | 10 | 7          | -- | --             |                                                                                    |                |  |  |                                                                                |  |  |  |
| 11:00 AM | Spaces Occupied       | 1 | 3                                      | 11           | 2                                | 17                        | 2                                | 3                          | 3                                     | 5                             | 14                                          | 8          | 10 | 4          | -- | --             |                                                                                    |                |  |  |                                                                                |  |  |  |
| 11:30 AM | Spaces Occupied       | 1 | 3                                      | 11           | 3                                | 18                        | 2                                | 3                          | 3                                     | 5                             | 11                                          | 11         | 8  | 6          | -- | --             |                                                                                    |                |  |  |                                                                                |  |  |  |
| 12:00 PM | Spaces Occupied       | 1 | 3                                      | 11           | 3                                | 18                        | 2                                | 3                          | 3                                     | 5                             | 9                                           | 11         | 9  | 6          | -- | --             |                                                                                    |                |  |  |                                                                                |  |  |  |
| 12:30 PM | Spaces Occupied       | 1 | 5                                      | 12           | 3                                | 19                        | 2                                | 3                          | 3                                     | 5                             | 8                                           | 8          | 8  | 6          | -- | --             |                                                                                    |                |  |  |                                                                                |  |  |  |
| 1:00 PM  | Spaces Occupied       | 1 | 6                                      | 12           | 3                                | 25                        | 2                                | 2                          | 3                                     | 5                             | 7                                           | 7          | 9  | 6          | -- | --             |                                                                                    |                |  |  |                                                                                |  |  |  |
| 1:30 PM  | Spaces Occupied       | 1 | 7                                      | 11           | 3                                | 65                        | 2                                | 3                          | 3                                     | 4                             | 4                                           | 5          | 9  | 6          | -- | --             |                                                                                    |                |  |  |                                                                                |  |  |  |
| 2:00 PM  | Spaces Occupied       | 1 | 8                                      | 11           | 3                                | 83                        | 2                                | 3                          | 3                                     | 4                             | 7                                           | 5          | 8  | 6          | -- | --             |                                                                                    |                |  |  |                                                                                |  |  |  |

## Parking Supply Calculations Table Weekday Evening

|         | Existing Condition   |                                             |                  | Dedication of Existing Spaces for Restaurant |                        |                       |           | Total Supply to be Dedicated | Future Public Parking Supply |                                             |                                |
|---------|----------------------|---------------------------------------------|------------------|----------------------------------------------|------------------------|-----------------------|-----------|------------------------------|------------------------------|---------------------------------------------|--------------------------------|
|         | Total Parking Supply | Total On-Street & Off-Street Parking Demand | Available Spaces | On-Site                                      | Village Hall Lot Front | Village Hall Lot Rear | Gated Lot |                              | Future Public Parking Supply | Total On-Street & Off-Street Parking Demand | Future Available Public Spaces |
| 6:00 PM | 356 spaces           | 230 vehicles                                | 126 spaces       | 6 spaces                                     | 0 spaces               | 34 spaces             | 18 spaces | 58 spaces                    | 298 spaces                   | 230 vehicles                                | 68 spaces                      |
| 6:30 PM | 356 spaces           | 219 vehicles                                | 137 spaces       | 6 spaces                                     | 0 spaces               | 34 spaces             | 18 spaces | 58 spaces                    | 298 spaces                   | 219 vehicles                                | 79 spaces                      |
| 7:00 PM | 356 spaces           | 205 vehicles                                | 151 spaces       | 6 spaces                                     | 0 spaces               | 34 spaces             | 18 spaces | 58 spaces                    | 298 spaces                   | 205 vehicles                                | 93 spaces                      |
| 7:30 PM | 356 spaces           | 228 vehicles                                | 128 spaces       | 6 spaces                                     | 0 spaces               | 34 spaces             | 18 spaces | 58 spaces                    | 298 spaces                   | 228 vehicles                                | 70 spaces                      |
| 8:00 PM | 356 spaces           | 218 vehicles                                | 138 spaces       | 6 spaces                                     | 0 spaces               | 34 spaces             | 18 spaces | 58 spaces                    | 298 spaces                   | 218 vehicles                                | 80 spaces                      |
| 8:30 PM | 356 spaces           | 190 vehicles                                | 166 spaces       | 6 spaces                                     | 0 spaces               | 34 spaces             | 18 spaces | 58 spaces                    | 298 spaces                   | 190 vehicles                                | 108 spaces                     |
| 9:00 PM | 356 spaces           | 177 vehicles                                | 179 spaces       | 6 spaces                                     | 0 spaces               | 34 spaces             | 18 spaces | 58 spaces                    | 298 spaces                   | 177 vehicles                                | 121 spaces                     |

| Restaurant Parking Supply Breakdown |          |                        |                       |           |                 |                              |
|-------------------------------------|----------|------------------------|-----------------------|-----------|-----------------|------------------------------|
|                                     | On-Site  | Village Hall Lot Front | Village Hall Lot Rear | Gated Lot | 1st Street Lots | Additional Supply from Valet |
| 6:00 PM                             | 4 spaces | 0 spaces               | 34 spaces             | 18 spaces | 0 spaces        | 19 vehicles                  |
| 6:30 PM                             | 4 spaces | 0 spaces               | 34 spaces             | 18 spaces | 0 spaces        | 19 vehicles                  |
| 7:00 PM                             | 4 spaces | 0 spaces               | 34 spaces             | 18 spaces | 0 spaces        | 19 vehicles                  |
| 7:30 PM                             | 4 spaces | 0 spaces               | 34 spaces             | 18 spaces | 0 spaces        | 19 vehicles                  |
| 8:00 PM                             | 4 spaces | 0 spaces               | 34 spaces             | 18 spaces | 0 spaces        | 19 vehicles                  |
| 8:30 PM                             | 4 spaces | 0 spaces               | 34 spaces             | 18 spaces | 0 spaces        | 19 vehicles                  |
| 9:00 PM                             | 4 spaces | 0 spaces               | 34 spaces             | 18 spaces | 0 spaces        | 19 vehicles                  |

| Parking Supply upon Restaurant Opening |                                     |                                |                                               |
|----------------------------------------|-------------------------------------|--------------------------------|-----------------------------------------------|
|                                        | Dedicated Restaurant Parking Spaces | Future Available Public Spaces | Total Parking Supply Available for Restaurant |
| 6:00 PM                                | 75 spaces                           | 68 spaces                      | 143 spaces                                    |
| 6:30 PM                                | 75 spaces                           | 79 spaces                      | 154 spaces                                    |
| 7:00 PM                                | 75 spaces                           | 93 spaces                      | 168 spaces                                    |
| 7:30 PM                                | 75 spaces                           | 70 spaces                      | 145 spaces                                    |
| 8:00 PM                                | 75 spaces                           | 80 spaces                      | 155 spaces                                    |
| 8:30 PM                                | 75 spaces                           | 108 spaces                     | 183 spaces                                    |
| 9:00 PM                                | 75 spaces                           | 121 spaces                     | 196 spaces                                    |

## Parking Supply Calculations Table Friday Evening

| Existing Condition   |            |                                             |            | Dedication of Existing Spaces for Restaurant |           |           |                        | Future Public Parking Supply |            |                              |                              |                                             |                                |
|----------------------|------------|---------------------------------------------|------------|----------------------------------------------|-----------|-----------|------------------------|------------------------------|------------|------------------------------|------------------------------|---------------------------------------------|--------------------------------|
| Total Parking Supply |            | Total On-Street & Off-Street Parking Demand |            | Available Spaces                             |           | On-Site   | Village Hall Lot Front | Village Hall Lot Rear        | Gated Lot  | Total Supply to be Dedicated | Future Public Parking Supply | Total On-Street & Off-Street Parking Demand | Future Available Public Spaces |
| 6:00 PM              | 356 spaces | 189 vehicles                                | 167 spaces | 6 spaces                                     | 39 spaces | 34 spaces | 18 spaces              | 97 spaces                    | 259 spaces | 189 vehicles                 | 70 spaces                    |                                             |                                |
| 6:30 PM              | 356 spaces | 199 vehicles                                | 157 spaces | 6 spaces                                     | 39 spaces | 34 spaces | 18 spaces              | 97 spaces                    | 259 spaces | 199 vehicles                 | 60 spaces                    |                                             |                                |
| 7:00 PM              | 356 spaces | 194 vehicles                                | 162 spaces | 6 spaces                                     | 39 spaces | 34 spaces | 18 spaces              | 97 spaces                    | 259 spaces | 194 vehicles                 | 65 spaces                    |                                             |                                |
| 7:30 PM              | 356 spaces | 204 vehicles                                | 152 spaces | 6 spaces                                     | 39 spaces | 34 spaces | 18 spaces              | 97 spaces                    | 259 spaces | 204 vehicles                 | 55 spaces                    |                                             |                                |
| 8:00 PM              | 356 spaces | 215 vehicles                                | 141 spaces | 6 spaces                                     | 39 spaces | 34 spaces | 18 spaces              | 97 spaces                    | 259 spaces | 215 vehicles                 | 44 spaces                    |                                             |                                |
| 8:30 PM              | 356 spaces | 207 vehicles                                | 149 spaces | 6 spaces                                     | 39 spaces | 34 spaces | 18 spaces              | 97 spaces                    | 259 spaces | 207 vehicles                 | 52 spaces                    |                                             |                                |
| 9:00 PM              | 356 spaces | 185 vehicles                                | 171 spaces | 6 spaces                                     | 39 spaces | 34 spaces | 18 spaces              | 97 spaces                    | 259 spaces | 185 vehicles                 | 74 spaces                    |                                             |                                |

| Restaurant Parking Supply Breakdown |          |           |                        |                       |           |                 |                              | Parking Supply upon Restaurant Opening |                                     |                                |                                               |
|-------------------------------------|----------|-----------|------------------------|-----------------------|-----------|-----------------|------------------------------|----------------------------------------|-------------------------------------|--------------------------------|-----------------------------------------------|
|                                     |          | On-Site   | Village Hall Lot Front | Village Hall Lot Rear | Gated Lot | 1st-Street Lots | Additional Supply from Valet | Dedicated Restaurant Parking Spaces    | Dedicated Restaurant Parking Spaces | Future Available Public Spaces | Total Parking Supply Available for Restaurant |
| 6:00 PM                             | 4 spaces | 39 spaces | 34 spaces              | 18 spaces             | 30 spaces | 30 vehicles     | 155 spaces                   | 6:00 PM                                | 155 spaces                          | 70 spaces                      | 225 spaces                                    |
| 6:30 PM                             | 4 spaces | 39 spaces | 34 spaces              | 18 spaces             | 30 spaces | 30 vehicles     | 155 spaces                   | 6:30 PM                                | 155 spaces                          | 60 spaces                      | 215 spaces                                    |
| 7:00 PM                             | 4 spaces | 39 spaces | 34 spaces              | 18 spaces             | 30 spaces | 30 vehicles     | 155 spaces                   | 7:00 PM                                | 155 spaces                          | 65 spaces                      | 220 spaces                                    |
| 7:30 PM                             | 4 spaces | 39 spaces | 34 spaces              | 18 spaces             | 30 spaces | 30 vehicles     | 155 spaces                   | 7:30 PM                                | 155 spaces                          | 55 spaces                      | 210 spaces                                    |
| 8:00 PM                             | 4 spaces | 39 spaces | 34 spaces              | 18 spaces             | 30 spaces | 30 vehicles     | 155 spaces                   | 8:00 PM                                | 155 spaces                          | 44 spaces                      | 199 spaces                                    |
| 8:30 PM                             | 4 spaces | 39 spaces | 34 spaces              | 18 spaces             | 30 spaces | 30 vehicles     | 155 spaces                   | 8:30 PM                                | 155 spaces                          | 52 spaces                      | 207 spaces                                    |
| 9:00 PM                             | 4 spaces | 39 spaces | 34 spaces              | 18 spaces             | 30 spaces | 30 vehicles     | 155 spaces                   | 9:00 PM                                | 155 spaces                          | 74 spaces                      | 229 spaces                                    |

## Parking Supply Calculations Table

### Saturday Evening

|         | Existing Condition   |                                             |                  |          | Dedication of Existing Spaces for Restaurant |                       |           |                              | Future Public Parking Supply |                                             |                                |
|---------|----------------------|---------------------------------------------|------------------|----------|----------------------------------------------|-----------------------|-----------|------------------------------|------------------------------|---------------------------------------------|--------------------------------|
|         | Total Parking Supply | Total On-Street & Off-Street Parking Demand | Available Spaces | On-Site  | Village Hall Lot Front                       | Village Hall Lot Rear | Gated Lot | Total Supply to be Dedicated | Future Public Parking Supply | Total On-Street & Off-Street Parking Demand | Future Available Public Spaces |
| 6:00 PM | 356 spaces           | 128 vehicles                                | 228 spaces       | 6 spaces | 39 spaces                                    | 34 spaces             | 18 spaces | 97 spaces                    | 259 spaces                   | 128 vehicles                                | 131 spaces                     |
| 6:30 PM | 356 spaces           | 134 vehicles                                | 222 spaces       | 6 spaces | 39 spaces                                    | 34 spaces             | 18 spaces | 97 spaces                    | 259 spaces                   | 134 vehicles                                | 125 spaces                     |
| 7:00 PM | 356 spaces           | 130 vehicles                                | 226 spaces       | 6 spaces | 39 spaces                                    | 34 spaces             | 18 spaces | 97 spaces                    | 259 spaces                   | 130 vehicles                                | 129 spaces                     |
| 7:30 PM | 356 spaces           | 149 vehicles                                | 207 spaces       | 6 spaces | 39 spaces                                    | 34 spaces             | 18 spaces | 97 spaces                    | 259 spaces                   | 149 vehicles                                | 110 spaces                     |
| 8:00 PM | 356 spaces           | 150 vehicles                                | 206 spaces       | 6 spaces | 39 spaces                                    | 34 spaces             | 18 spaces | 97 spaces                    | 259 spaces                   | 150 vehicles                                | 109 spaces                     |
| 8:30 PM | 356 spaces           | 155 vehicles                                | 201 spaces       | 6 spaces | 39 spaces                                    | 34 spaces             | 18 spaces | 97 spaces                    | 259 spaces                   | 155 vehicles                                | 104 spaces                     |
| 9:00 PM | 356 spaces           | 153 vehicles                                | 203 spaces       | 6 spaces | 39 spaces                                    | 34 spaces             | 18 spaces | 97 spaces                    | 259 spaces                   | 153 vehicles                                | 106 spaces                     |

| Restaurant Parking Supply Breakdown |          |                        |                       |           |                 |                              | Parking Supply upon Restaurant Opening |                                     |                                |                                               |
|-------------------------------------|----------|------------------------|-----------------------|-----------|-----------------|------------------------------|----------------------------------------|-------------------------------------|--------------------------------|-----------------------------------------------|
|                                     | On-Site  | Village Hall Lot Front | Village Hall Lot Rear | Gated Lot | 1st Street Lots | Additional Supply from Valet | Dedicated Restaurant Parking Spaces    | Dedicated Restaurant Parking Spaces | Future Available Public Spaces | Total Parking Supply Available for Restaurant |
| 6:00 PM                             | 4 spaces | 39 spaces              | 34 spaces             | 18 spaces | 30 spaces       | 30 vehicles                  | 155 spaces                             | 155 spaces                          | 131 spaces                     | 286 spaces                                    |
| 6:30 PM                             | 4 spaces | 39 spaces              | 34 spaces             | 18 spaces | 30 spaces       | 30 vehicles                  | 155 spaces                             | 155 spaces                          | 125 spaces                     | 280 spaces                                    |
| 7:00 PM                             | 4 spaces | 39 spaces              | 34 spaces             | 18 spaces | 30 spaces       | 30 vehicles                  | 155 spaces                             | 155 spaces                          | 129 spaces                     | 284 spaces                                    |
| 7:30 PM                             | 4 spaces | 39 spaces              | 34 spaces             | 18 spaces | 30 spaces       | 30 vehicles                  | 155 spaces                             | 155 spaces                          | 110 spaces                     | 265 spaces                                    |
| 8:00 PM                             | 4 spaces | 39 spaces              | 34 spaces             | 18 spaces | 30 spaces       | 30 vehicles                  | 155 spaces                             | 155 spaces                          | 109 spaces                     | 264 spaces                                    |
| 8:30 PM                             | 4 spaces | 39 spaces              | 34 spaces             | 18 spaces | 30 spaces       | 30 vehicles                  | 155 spaces                             | 155 spaces                          | 104 spaces                     | 259 spaces                                    |
| 9:00 PM                             | 4 spaces | 39 spaces              | 34 spaces             | 18 spaces | 30 spaces       | 30 vehicles                  | 155 spaces                             | 155 spaces                          | 106 spaces                     | 261 spaces                                    |

## Parking Supply Calculations Table

### Sunday MIDDAY

| Existing Condition   |                                             |                  |          | Dedication of Existing Spaces for Restaurant |                       |           |                              | Future Public Parking Supply |                                             |                                |
|----------------------|---------------------------------------------|------------------|----------|----------------------------------------------|-----------------------|-----------|------------------------------|------------------------------|---------------------------------------------|--------------------------------|
| Total Parking Supply | Total On-Street & Off-Street Parking Demand | Available Spaces | On-Site  | Village Hall Lot Front                       | Village Hall Lot Rear | Gated Lot | Total Supply to be Dedicated | Future Public Parking Supply | Total On-Street & Off-Street Parking Demand | Future Available Public Spaces |
| 11:00 AM             | 337 spaces                                  | 218 spaces       | 6 spaces | 0 spaces                                     | 34 spaces             | 18 spaces | 58 spaces                    | 279 spaces                   | 119 vehicles                                | 160 spaces                     |
| 11:30 AM             | 337 spaces                                  | 218 spaces       | 6 spaces | 0 spaces                                     | 34 spaces             | 18 spaces | 58 spaces                    | 279 spaces                   | 119 vehicles                                | 160 spaces                     |
| 12:00 PM             | 337 spaces                                  | 215 spaces       | 6 spaces | 0 spaces                                     | 34 spaces             | 18 spaces | 58 spaces                    | 279 spaces                   | 122 vehicles                                | 157 spaces                     |
| 12:30 PM             | 337 spaces                                  | 219 spaces       | 6 spaces | 0 spaces                                     | 34 spaces             | 18 spaces | 58 spaces                    | 279 spaces                   | 118 vehicles                                | 161 spaces                     |
| 1:00 PM              | 337 spaces                                  | 215 spaces       | 6 spaces | 0 spaces                                     | 34 spaces             | 18 spaces | 58 spaces                    | 279 spaces                   | 122 vehicles                                | 157 spaces                     |
| 1:30 PM              | 337 spaces                                  | 175 spaces       | 6 spaces | 0 spaces                                     | 34 spaces             | 18 spaces | 58 spaces                    | 279 spaces                   | 162 vehicles                                | 117 spaces                     |
| 2:00 PM              | 337 spaces                                  | 159 spaces       | 6 spaces | 0 spaces                                     | 34 spaces             | 18 spaces | 58 spaces                    | 279 spaces                   | 178 vehicles                                | 101 spaces                     |

| Restaurant Parking Supply Breakdown |                        |                       |           |                 |                              |                                     |
|-------------------------------------|------------------------|-----------------------|-----------|-----------------|------------------------------|-------------------------------------|
| On-Site                             | Village Hall Lot Front | Village Hall Lot Rear | Gated Lot | 1st Street Lots | Additional Supply from Valet | Dedicated Restaurant Parking Spaces |
| 11:00 AM                            | 4 spaces               | 34 spaces             | 18 spaces | 0 spaces        | 19 vehicles                  | 75 spaces                           |
| 11:30 AM                            | 4 spaces               | 34 spaces             | 18 spaces | 0 spaces        | 19 vehicles                  | 75 spaces                           |
| 12:00 PM                            | 4 spaces               | 34 spaces             | 18 spaces | 0 spaces        | 19 vehicles                  | 75 spaces                           |
| 12:30 PM                            | 4 spaces               | 34 spaces             | 18 spaces | 0 spaces        | 19 vehicles                  | 75 spaces                           |
| 1:00 PM                             | 4 spaces               | 34 spaces             | 18 spaces | 0 spaces        | 19 vehicles                  | 75 spaces                           |
| 1:30 PM                             | 4 spaces               | 34 spaces             | 18 spaces | 0 spaces        | 19 vehicles                  | 75 spaces                           |
| 2:00 PM                             | 4 spaces               | 34 spaces             | 18 spaces | 0 spaces        | 19 vehicles                  | 75 spaces                           |

| Parking Supply upon Restaurant Opening |                                     |                                |                                               |
|----------------------------------------|-------------------------------------|--------------------------------|-----------------------------------------------|
|                                        | Dedicated Restaurant Parking Spaces | Future Available Public Spaces | Total Parking Supply Available for Restaurant |
| 6:00 PM                                | 75 spaces                           | 160 spaces                     | 235 spaces                                    |
| 6:30 PM                                | 75 spaces                           | 160 spaces                     | 235 spaces                                    |
| 7:00 PM                                | 75 spaces                           | 157 spaces                     | 232 spaces                                    |
| 7:30 PM                                | 75 spaces                           | 161 spaces                     | 236 spaces                                    |
| 8:00 PM                                | 75 spaces                           | 157 spaces                     | 232 spaces                                    |
| 8:30 PM                                | 75 spaces                           | 117 spaces                     | 192 spaces                                    |
| 9:00 PM                                | 75 spaces                           | 101 spaces                     | 176 spaces                                    |