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COBBLESTONE VILLAGE ROLESVILLE, NC

SHARED PARKING ANALYSIS



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Cobblestone Village Mixed-Use Development

Shared Parking Analysis

The proposed Cobblestone Village Mixed Use Development is to be located in Rolesville, NC at the intersection of S. Main Street and W. Young Street. A number of uses including residential apartments, restaurants, retail and community center are proposed for the mixed-use development. The mixed-use development proposes to include 180 residential apartments, 53,384 square feet of retail/flex/commercial space.

A shared parking study has been performed to determine the parking demand for the development. A number of items were considered when determining the parking demand for the development including land use and hours of operation.

The parking requirements were taken from the Town of Rolesville’s Town Center ordinance. The ordinance breaks parking requirements into two land uses, mixed-use residential and mixed-use nonresidential. The mixed-use residential requires two parking spaces per dwelling unit. The mixed-use nonresidential requires three spaces for each 1,000 square feet of gross floor area.

Based upon 188 mixed-use residential units and 53,384 square feet of mixed-use nonresidential mixed-use space, the parking requirement are as follows:

188 mixed use residential units x 2 spaces per unit	= 376 spaces
<u>53,384 sf mixed-use nonresidential @ 3 spaces per 1,000 sf</u>	<u>= 161 spaces</u>
Total Single-Use Parking Requirement	= 537 spaces

Once the parking requirement was established, a shared parking analysis was performed. Shared Parking is defined as *the concept of parking which recognizes that uses in proximity to one another may have parking demands which permit such uses to share the same marginal parking spaces provided to accommodate peak parking conditions in a common parking facility.*

An optimized parking analysis was performed using parking demand and parking distribution data from the Institute of Transportation Engineers “Parking Generation Manual” 5th Edition. Parking distribution data expressed in percent of peak parking demand given hourly was performed for each use. This analysis was performed for weekday and on Saturday. A peak hour parking demand was determined from each of the analysis.

Conclusion

The shared parking analysis shows that during weekdays, the peak parking demand for the development occurs at 7:00 p.m. with a total parking demand of 404 parking spaces needed. The Saturday analysis also shows that the peak parking demand occurred at 7:00 p.m. with a parking demand of 417 parking spaces.

The site plan proposes a total of 444 on-site spaces and 24 on-street parking spaces for a total of 468 parking spaces proposed. Therefore, based on the results of the shared parking analysis performed for Cobblestone Village, the peak hour parking demand of 417 parking spaces will be met.

For events that may be held at Cobblestone Village, it is difficult to quantify a parking demand due to a number of factors such as what the event may be, type of event, time of event, etc. The developer of Cobblestone Village is committed to working with the Town of Rolesville to identify overflow parking locations/facilities that can be utilized in during an event where additional parking is needed.

Cobblestone Village Shared Parking Analysis

December 7, 2023

Total Square Footage and Unit Tabulation

	Restaurant SF	Community Center SF	Retail/Flex/Commercial SF	Residential Units
Building 1				40
Building 2			11,678	30
Building 3			8,612	18
Building 4			10,420	
Building 5			5,970	
Building 6			16,704	36
Building 7				40
Building 8				24
Total:	-	-	53,384	188

NON-OPTIMIZED Single-Use Parking Requirements

Parking Coefficient:	3/1,000 SF	3/1,000 SF	3/1,000 SF	2 per unit
Parking Count:	0	-	161.00	376

Single-Use Required: **537** **Total:**

OPTIMIZED Peak Hour Percentage Factors WEEKDAY

TIME	% of peak	demand	% of peak	demand	% of peak	demand	% of peak	demand	Total Hourly Sums
6:00 AM	10%	0	0%	0	0%	0	90%	338	339
7:00 AM	25%	0	58%	0	0%	0	77%	290	290
8:00 AM	68%	0	72%	0	15%	25	56%	211	236
9:00 AM	72%	0	95%	0	32%	52	45%	169	222
10:00 AM	77%	0	94%	0	54%	87	40%	150	238
11:00 AM	83%	0	95%	0	71%	115	37%	139	255
12:00 PM	100%	0	83%	0	99%	160	36%	135	296
1:00 PM	91%	0	65%	0	100%	161	36%	135	297
2:00 PM	56%	0	56%	0	90%	145	37%	139	285
3:00 PM	42%	0	64%	0	83%	134	43%	162	296
4:00 PM	42%	0	75%	0	81%	131	45%	169	301
5:00 PM	64%	0	84%	0	84%	136	55%	207	343
6:00 PM	87%	0	100%	0	86%	139	66%	248	388
7:00 PM	79%	0	99%	0	80%	129	73%	274	404
8:00 PM	65%	0	0%	0	63%	102	77%	290	392
9:00 PM	42%	0	0%	0	42%	68	86%	323	392
10:00 PM	21%	0	0%	0	15%	25	92%	346	371
11:00 PM	0%	0	0%	0	0%	0	97%	365	365
12:00 AM	0%	0	0%	0	0%	0	100%	376	376

WEEKDAY Peak Demand Required: **404**

OPTIMIZED Peak Hour Percentage Factors SATURDAY

TIME	% of peak	demand	% of peak	demand	% of peak	demand	% of peak	demand	Total Hourly Sums
6:00 AM	15%	0	0%	0	0%	0	98%	368	369
7:00 AM	28%	0	50%	0	0%	0	96%	361	361
8:00 AM	52%	0	75%	0	27%	44	92%	346	390
9:00 AM	75%	0	100%	0	46%	75	80%	301	376
10:00 AM	91%	0	89%	0	67%	108	78%	293	402
11:00 AM	100%	0	80%	0	85%	137	71%	267	404
12:00 PM	90%	0	68%	0	95%	153	68%	256	409
1:00 PM	80%	0	60%	0	100%	161	66%	248	410
2:00 PM	67%	0	60%	0	98%	158	65%	244	403
3:00 PM	45%	0	53%	0	92%	149	68%	256	405
4:00 PM	39%	0	52%	0	86%	139	70%	263	403
5:00 PM	40%	0	49%	0	79%	128	73%	274	403
6:00 PM	40%	0	50%	0	71%	115	77%	290	405
7:00 PM	58%	0	50%	0	69%	112	81%	305	417
8:00 PM	40%	0	0%	0	60%	97	82%	308	406
9:00 PM	35%	0	0%	0	51%	83	86%	323	407
10:00 PM	33%	0	0%	0	38%	62	87%	327	390
11:00 PM	0%	0	0%	0	0%	0	92%	346	346
12:00 AM	0%	0	0%	0	0%	0	93%	350	350

SATURDAY Peak Demand Required: **417**

Parking Provided:	
On-Site	444
On-Street	24
Total Parking Provided	468

Assumptions:

Parking requirements based on current Town of Rolesville Town Center District parking requirements.
 Accessible Spaces: 11 Required / 25 Provided
 40 Bicycle Spaces are provided.