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COBBLESTONE VILLAGE
ROLESVILLE, NORTH CAROLINA

SHARED PARKING ANALYSIS

6/29/21

PREPARED BY
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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, 18,200 square feet of community center use and 49,830 square feet of retail/restaurant 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 180 mixed-use residential units and 49,830 square feet of mixed-use nonresidential mixed-use space, the parking requirement are as follows:

180 mixed use residential units x 2 spaces per unit = 360 spaces

49,830 sf mixed-use nonresidential @ 3 spaces per 1,000 sf = 150 spaces

18,200 sf mixed-use nonresidential (Comm. Center) @ 3 spaces per 1,000 sf = 55 spaces

Total Single-Use Parking Requirement = 565 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 437 parking spaces needed. The Saturday analysis also shows that the peak parking demand occurred at 10:00 a.m. with a parking demand of 457 parking spaces.

The site plan proposes a total of 457 on-site spaces and 24 on-street parking spaces for a total of 481 parking spaces proposed. Therefore, based on the results of the shared parking analysis performed for Cobblestone Village, the peak hour parking demand of 457 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 during an event where additional parking is needed.

Cobblestone Village Shared Parking Analysis

June 29, 2021

Total Square Footage and Unit Tabulation

	Restaurant SF	Community Center SF	Retail/Flex SF	Residential Units
Building 1	.			40
Building 2	11,523		4,938	30
Building 3	7,984		3,421	18
Building 4		18,200		
Building 5	2,671		1,145	4
Building 6	12,702		5,444	36
Building 7				40
Building 8				12
Total:	34,880	18,200	14,948	180

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:	**105**	**55.00**	**45.00**	**360**	**Total:**
				Single-Use Required:	**565**

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%	11	0%	0	0%	0	90%	324	335
7:00 AM	25%	27	58%	32	0%	0	77%	277	337
8:00 AM	68%	72	72%	40	15%	7	56%	202	321
9:00 AM	72%	76	95%	53	32%	15	45%	162	306
10:00 AM	77%	81	94%	52	54%	25	40%	144	302
11:00 AM	83%	88	95%	53	71%	32	37%	133	307
12:00 PM	100%	105	83%	46	99%	45	36%	130	326
1:00 PM	91%	96	65%	36	100%	45	36%	130	307
2:00 PM	56%	59	56%	31	90%	41	37%	133	265
3:00 PM	42%	45	64%	36	83%	38	43%	155	274
4:00 PM	42%	45	75%	42	81%	37	45%	162	286
5:00 PM	64%	68	84%	47	84%	38	55%	198	351
6:00 PM	87%	92	100%	55	86%	39	66%	238	424
7:00 PM	79%	83	99%	55	80%	36	73%	263	437
8:00 PM	65%	69	0%	0	63%	29	77%	277	376
9:00 PM	42%	45	0%	0	42%	19	86%	310	374
10:00 PM	21%	23	0%	0	15%	7	92%	331	362
11:00 PM	0%	0	0%	0	0%	0	97%	349	350
12:00 AM	0%	0	0%	0	0%	0	100%	360	360

WEEKDAY Peak Demand Required: **437**

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%	16	0%	0	0%	0	98%	353	369
7:00 AM	28%	30	50%	28	0%	0	96%	346	404
8:00 AM	52%	55	75%	42	27%	13	92%	331	442
9:00 AM	75%	79	100%	55	46%	21	80%	288	443
10:00 AM	91%	96	89%	49	67%	31	78%	281	457
11:00 AM	100%	105	80%	44	85%	39	71%	256	444
12:00 PM	90%	95	68%	38	95%	43	68%	245	421
1:00 PM	80%	84	60%	33	100%	45	66%	238	400
2:00 PM	67%	71	60%	33	98%	45	65%	234	383
3:00 PM	45%	48	53%	30	92%	42	68%	245	365
4:00 PM	39%	41	52%	29	86%	39	70%	252	361
5:00 PM	40%	42	49%	27	79%	36	73%	263	368
6:00 PM	40%	42	50%	28	71%	32	77%	277	380
7:00 PM	58%	61	50%	28	69%	32	81%	292	413
8:00 PM	40%	42	0%	0	60%	27	82%	295	365
9:00 PM	35%	37	0%	0	51%	23	86%	310	370
10:00 PM	33%	35	0%	0	38%	18	87%	313	367
11:00 PM	0%	0	0%	0	0%	0	92%	331	332
12:00 AM	0%	0	0%	0	0%	0	93%	335	335

SATURDAY Peak Demand Required: **457**

Parking Provided:	
On-Site	457
On-Street	24
Total Parking Provided	**481**

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.