



Downtown Parking Analysis

Mount Holly, NC

January 29, 2024

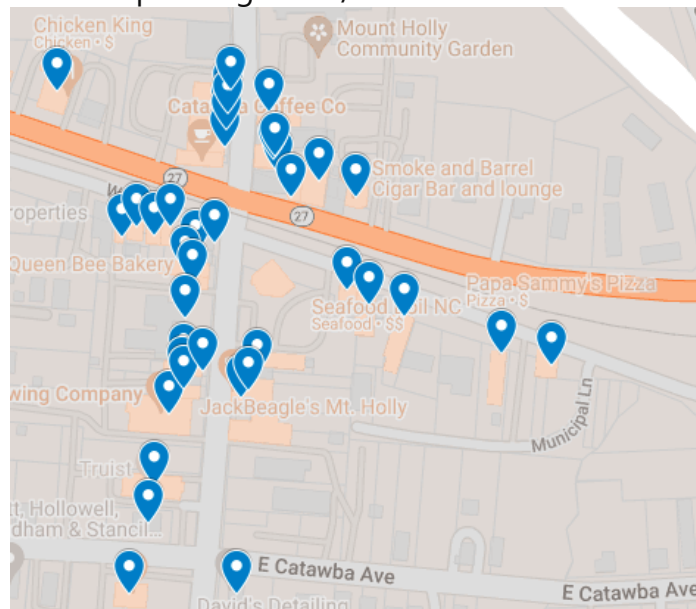
Overview

Among the most consistent concerns raised by residents and elected officials of Mount Holly is the perception of inadequate parking in the downtown area. This analysis focuses on objectively determining the adequacy of existing downtown public parking spaces for both the present and future requirements. Parking space-to-business square footage ratios are analyzed to determine the appropriate range of parking spaces necessary for downtown establishments.

Current Retail/Commercial Business Space in Downtown

The collective square footage of existing retail, commercial, and restaurant businesses is **149,270 ft²**.

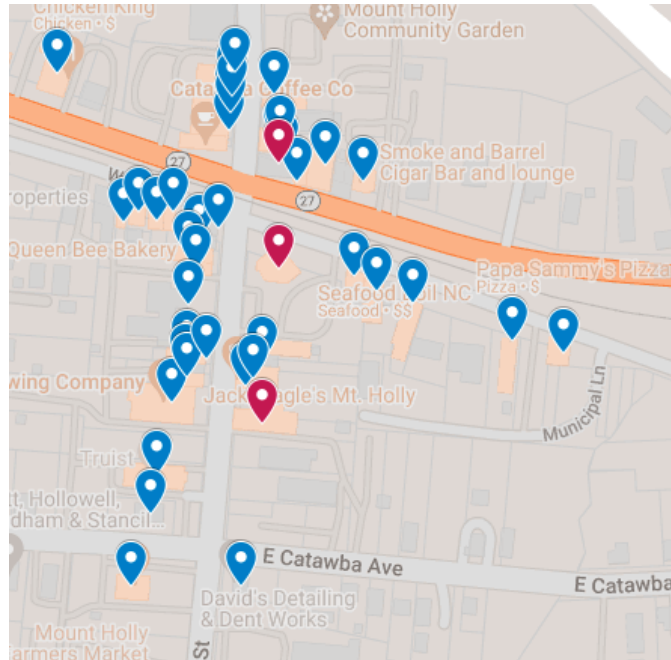
Figure 1. Current Operating Retail/Commercial Business in Downtown



Future Potential Development

Anticipating the potential future redevelopment of the Wells Fargo parcel, Old City Hall, and 91 E Charlotte (Figure 2), the combined square footage of these potential businesses added to the existing businesses totals **160,426 ft²**.

Figure 2. Current (Blue) and Potential (Red) Retail/Commercial Business in Downtown



Parking Requirements

There are different approaches and theories for determining how much parking is required for commercial establishments (parking ratios). The parking ratios in the current Code of Ordinances (Chapter 8) represent a conservative approach that has been the standard for decades and calls for **one parking space for every 200 ft²** of commercial space.

It should be noted, however, that Section 8.1 of the Code of Ordinance - which stipulates the Off-Street Parking requirements - makes a specific exemption for the B-1 Central Business District:

“Off-street parking shall not be required in the B-1 Central Business District.”

The reference to the parking requirements in the Code of Ordinances, therefore, is purely academic and for purposes of analysis because there is no requirement for the downtown area.

Table 1. Mount Holly Commercial and Industrial Parking Requirements

<i>Classification</i>	<i>Off-Street Parking Requirements</i>
Auto sales	1 space per 400 square feet of building area devoted to sales
Auto service station and/or repair shops	4 spaces per service bay, plus 1 space per wrecker or service vehicle
Bank and consumer financial services	1 space per 200 square feet of gross floor area
Barber shop and other personal services	2 spaces per operator
Beauty shops	3 spaces per operator
Car washes	1 space per 2 employees
Delivery, ambulance and other similar services	1 space per vehicle, plus 1 space for each 2 employees
Designed shopping centers	5 spaces per 1,000 square feet of gross floor area (optional to computing parking on a store by store basis)
Drive-through service such as banks, automobile service stations, dry cleaners, car washes and similar uses (in addition to use requirements)	Stacking for 4 vehicles at each bay, window or lane
Dry cleaners or laundries (self-service)	1 space per 4 rental pieces of equipment
Eating establishments and nightclubs serving meals	10 spaces, plus 1 for every 3 seats
Fire stations	1 space per person on duty on a normal shift
Hotel, motel, motor court and similar uses	1 space per unit, plus 2 spaces per 3 employees on a normal shift
Manufacturing, industrial, warehousing and wholesaling	1 space per 3 employees on the largest shift
Mobile home sales	5 spaces, plus 1 space per 10,000 square feet of gross area
Post offices	1 space per 200 square feet of public service area, plus 2 spaces per 3 employees on the largest shift
Radio, television stations	2 spaces per 3 employees on the largest shift
Retail sales, except those listed below	1 space per 200 square feet of gross floor area
Retail sales of bulky items which require high rates of floor space to the number of items offered for sale such as antiques, appliances, art, bicycles, carpet, floor covering, furniture, motorcycles, paint, upholstery and similar uses	1 space per 300 square feet of gross floor area
Retail uses dealing primarily in service and/or repair	1 space per 200 square feet of gross floor area
Transportation terminals such as airports, bus terminals and railroad passenger stations	1 space per 4 seating accommodations for waiting passengers, plus 1 space for each 2 employees on the largest shift
Wholesale with related retail	1 space per 3 employees on the largest shift, plus additional spaces per square foot of gross floor area devoted to retail sales as applicable from "retail sales" schedule above

Source: https://codelibrary.amlegal.com/codes/mthollync/latest/mthollyzone_nc/0-0-0-2233

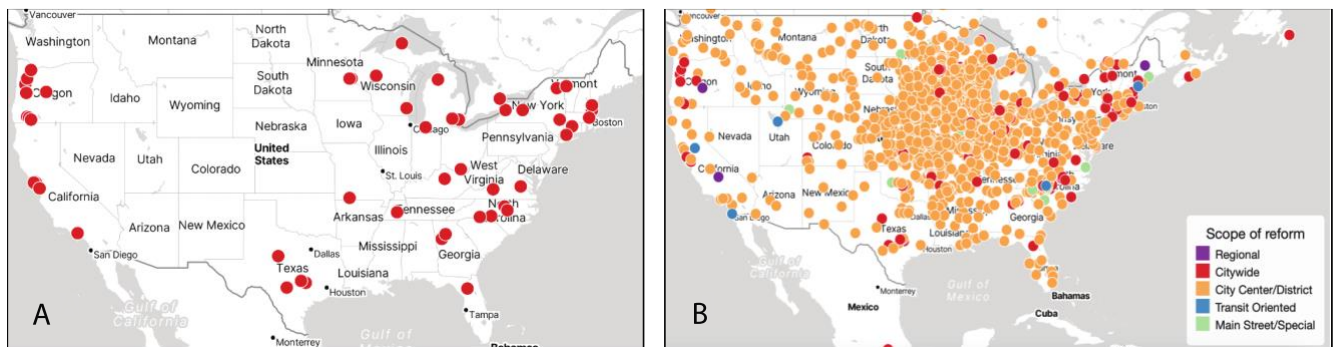
Over the past several years, there has been a growing trend among urban planners towards reducing or eliminating minimum parking requirements. The urban planning think tank Strong Towns, a nationally recognized thought leader in forward-looking urban development, has adopted a standard of **one parking space for every 400 ft²** of commercial space (<https://parkingreform.org/2021/11/22/a-new-way-to-look-at-costly-parking-mandates/>).

Some communities are taking an even more aggressive approach and abandoning legacy parking requirements entirely with the objective of optimizing parking and

freeing up land for densification, which can lead to more affordable housing, better transit, and walkable neighborhoods (<https://www.npr.org/2024/01/02/1221366173/u-s-cities-drop-parking-space-minimums-development>). The underlying assumption is that developers are motivated to provide sufficient parking, make their buildings viable for their tenants, and don't need mandates.

The crowdsourced map in Figure 3, highlights cities that have abandoned minimum parking requirements. More than 50 of the 200 analyzed codes have abolished the minimum parking mandates citywide (Figure 3a), while the remainder have eliminated parking requirements in specific areas such as a main street, downtown, or historic district (Figure 3b) (<https://parkingreform.org/mandates-map/#>). Notably, certain codes specifically target commercial land uses, particularly for walkable downtowns (<https://parkingreform.org/2021/11/22/a-new-way-to-look-at-costly-parking-mandates/>).

Figure 3. Cities that have Reformed Parking Requirements



Another factor in the trend towards lower parking ratios is the impact of future technology on parking utilization. Robo-taxi services like Cruise and Waymo are predicted to grow by 63% annually over the next decade and will eventually be available in most communities (<https://www.transparencymarketresearch.com/robo-taxi-market.html>). As self-driving autonomous vehicle technologies are implemented on EV platforms, ridership costs are projected to fall below the marginal costs of operating a personal vehicle. Over time, the percentage of total transportation trips in private vehicles that require parking will fall significantly. Given the prevalence of bars in the downtown area, the shift to more driverless trips would be a net positive from a public safety standpoint as well.

Table 2 provides an analysis of the downtown parking situation by comparing the number of parking spaces that are available to the amount that would be required in other areas of the City per Chapter 8 of the Code of Ordinances and the Strong Towns standards given the current and future retail square footage.

Table 2. Recommended Parking Spaces in Downtown

	Code of Ordinances	Strong Towns
Current	746	373
Future	802	401

The analysis of parking ratios assumes static, steady-state parking requirements for a commercial zone. The ratios do not contemplate events that draw large crowds. Mount Holly hosts various seasonal and annual events that require additional parking.

Typically, communities do not build parking infrastructure to accommodate exceptional demands like events because the cost of building the parking is not justified by the infrequent usage. Typically, residents understand having to park farther away and walk distances during events.

Inventory of Downtown Parking

The following is a breakdown of all the existing parking in the downtown area, grouped by category.

1. Public / Street Parking

The total available public parking spaces are (Figure 4):

- Parking lots –249
- Public street parking – 127
- **Total – 376**

Figure 4. Available Public Parking



2. Private but open to the public

Some private property owners have made their parking spaces accessible to the public in the B1 area (Figure 5):

- 131 E Charlotte Ave, Mt Holly, NC 28120 – 30
- Mount Holly Community Garden – 22
- Finish Line Christian Center (paid parking) – 83
- Behind Traust Brewing Company – 80
- Behind Queen Bee Bakery – 15
- Mount Holly Farmer’s Market – 80
- **Total – 310**

Figure 5. Private Parking but Open to the Public



3. Private Parking

The following properties have parking that is currently exclusive to their clients but may be open to negotiation for public accessibility (Figure 6):

- Wells Fargo – 30
- South State Bank – 35
- Vasileio’s Italian Kitchen – 40
- 215 S Main – 40

- Chicken King – 45
- Adjacent to Stroupe Electric – 95
- 300 E Charlotte Ave, Mt Holly, NC 28120 – 40
- CaroMont Regional Medical Center - Mount Holly – 90
- **Total – 415**

Figure 6. Private Parking

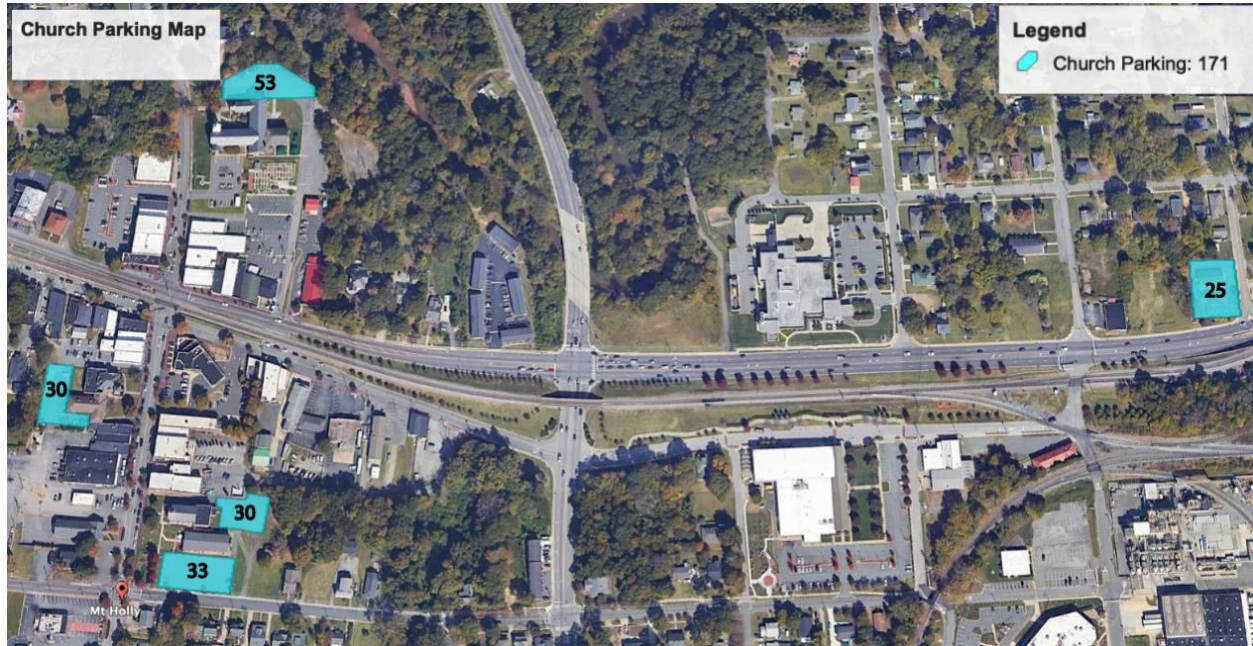


4. Church Parking

There are 3 churches in the B1 area that are currently closed to the public (Figure 7):

- First United Methodist Church – 53
- Evangelical Lutheran Church of The Good Shepherd – 30
- First Presbyterian Church – 63
- Spiritual Guidance Church– 25
- **Total – 171**

Figure 7. Church Parking



Summary of Downtown Parking

The overall parking capacity for downtown is summarized in Table 3 and visually represented in Fig. 8 below. Currently, the available parking downtown aligns with the standards adopted by Strong Towns but falls marginally below the requirements set by the existing Parking Code of Ordinances.

Figure 8. Total Parking Spaces in Downtown



Table 3. Total Parking Spaces in Downtown

	Parking Spaces			
Public & Street Parking	376			
Private but Open to Public	310			
Current Total Parking Spaces	686			
Private Parking	415			
Church Parking	171			
Total Parking Capacity	1272			
Recom. Parking by Code of Ordinances		Recom. Parking by Strong Towns		
Current	Future	Current	Future	
746	802	373	401	

Potential Capacity Development

The following are ways to provide additional parking capacity.

Private Parking Program

Develop a program that provides the following benefits to participating private property owners (including churches):

- Weekly sweeping
- Every-other-year parking lot striping
- 50% cost sharing for repaving and resealing costs

In exchange for:

- Public access to parking lots from 5PM to 11PM, which allows businesses downtown to use extra parking spaces during peak hours
- Mounting city-provided public parking signage

Assuming all of the private but currently open-to-public parking lots and half of the churches and private parking lots participated in the program, **the total annual cost is estimated to be ~\$34,000.**

Table 4. The Annual Cost of Private Parking Program

	Participating Parking Spaces	Annual Cleaning Fee	Annual Resurfacing Fee	Annual Resealing Fee	Annual Repainting Fee	Total Maintenance Cost/ Parking Type
Private but Open to Public	333	\$ 9,387.21	\$ 13,111.88	\$ 1,048.95	\$ 524.48	\$ 24,072.51
Private Parking	135	\$ 3,805.63	\$ 5,315.63	\$ 425.25	\$ 212.63	\$ 9,759.13
Church Parking	73	\$ 2,057.86	\$ 2,874.38	\$ 229.95	\$ 114.98	\$ 5,277.16
Total Annual Cost						\$ 39,108.80

Source: <https://www.truegridpaver.com/parking-lot-maintenance-costs/>

Building a 100-Lot Parking Deck

The average construction cost for a traditional multi-level parking deck ranges from \$31,500 to \$42,000 per space. The construction cost for a precast multi-level parking deck ranges from \$19,500 to \$26,000 per space (https://www.fixr.com/costs/build-parking-garage#:~:text=The%20average%20precast%20parking%20garage,common%20size%20is%20340%20sq.)). **For a 100-lot multi-level parking deck, the total construction cost would be between \$1.95 million to \$4.2 million.**

Building a 50-Lot Surface Parking Lot

Part of the Veterans Park development could be dedicated to public parking. A 50-space lot would require approximately a third of an acre (15,000 ft²). Paved parking lots typically cost between \$2.50 and \$7 per square foot and are usually made of either asphalt or concrete. Asphalt is the least expensive option at \$2 to \$4.0 per square foot, while concrete is \$4 to \$7 per square foot. The average parking space requires 300 ft² to 350 ft² per car. Additionally, considering factors such as labor, insurance, and taxes can contribute to a **total cost exceeding \$63,000 (Table 5)**.

Table 5. The Cost of Building a 50-Lot Surface Parking Lot

Cost per Square Feet	Square Feet per Lot	Number of Lots
\$ 4.00	315	50
Total Area		Total Cost
15750		\$ 63,000.00

Source: <https://www.angi.com/articles/cost-to-pave-parking-lot.htm#>

Beyond the construction fee, the expenses associated with maintaining the parking lot are substantial (Table 6).

Table 6. The Annual Cost of Maintaining a 50-Lot Parking Deck Over 20 Years

	Area (square feet)	Unit Price	Price/time	Services over 20 yrs	Cost over 20 yrs	Annual Cost
Cleaning Fee	15750	\$ 0.01	\$ 117.46	240	\$ 28,189.83	\$ 1,409.49
Resurfacing Fee	15750	\$ 5.00	\$ 78,750.00	1	\$ 78,750.00	\$ 3,937.50
Resealing Fee	15750	\$ 0.20	\$ 3,150.00	2	\$ 6,300.00	\$ 315.00
Repainting Fee	15750	\$ 0.10	\$ 1,575.00	2	\$ 3,150.00	\$ 157.50
Total Cost					\$ 116,389.83	\$ 5,819.49

Source: <https://www.truegridpaver.com/parking-lot-maintenance-costs/>

Sponsored Ride App Services

Because of the significant construction and maintenance costs of parking lots, reducing the demand for parking by leveraging alternative transportation methods can be cost-effective. Some communities subsidize or pay for ride app services (Lyft & Uber) into certain districts at specified times. The City could provide subsidized Uber and Lyft rides to Mount Holly residents coming to and returning from the downtown district. The ride app companies are able to geofence the services and could bill the City for part or all of such rides during designated times (evenings and weekends).

Event Parking / Shuttle Service

Shuttles could be contracted for special events to transport people from the Municipal Complex. The cost for a 55-passenger shuttle for a six-hour special event is between \$500 and \$1000.

Funding for Increasing Parking Capacity

1. Paid Parking

Utilize payment apps such as ParkMobile and ParkingWhiz in public lots. Revenue can be allocated to the maintenance and upkeep of the parking lots.

2. Create a Business Improvement District (BID)

Establishing a Business Improvement District (BID) could create a mechanism to collect funds dedicated to the maintenance of parking lots, according to Section 2(4) of Article 5 of the North Carolina Constitution (<https://ced.sog.unc.edu/2010/03/a-guide-to-business-improvement-districts-in-north-carolina>). By implementing a BID, a designated geographic area within the community can benefit from a specialized tax or fee structure. The revenue generated from these funds can be earmarked for maintaining and enhancing the condition of parking facilities.