

# Public Parking Utilization in the Central Business District of Elizabethtown: Its Relationship to Community Development



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## **1. Introduction**

Downtown economic development and the revitalization of central business districts in American small towns are pervasive goals of municipalities and private interest groups alike. Maintaining vibrant and viable retail districts in small towns has been an issue that municipal officials and private groups have been struggling with for quite some time now. In the not-so-distant past every community center had a grocer, a five and dime, a pharmacy, a mix of other specialty retailers, and even a movie theater. These establishments provided everyday goods and services for the local community. Starting sometime in the 1960's, market and lifestyle changes began to decrease the viability of these businesses. These changes are numerous, but a few are worthy of mention. First, the structure of retail business has changed dramatically since the 1960's. For example, it is difficult to locate a five and dime—big box stores have made them obsolete. Finding a single-screen cinema is also difficult; economies of scale and chain ownership have hastened their demise. Independent pharmacies are becoming an historical artifact; mergers have left us with two major drug store chains in the east. Supermarkets are the consumer choice for groceries and small grocers are few and far between. As a consequence, most of us are in reasonable proximity to at least one big box store, a multi-establishment shopping center or mall, a pharmacy with a parking lot, and a supermarket with a parking lot. This scenario attenuates the viability of traditional small downtown retail establishments.

At the same time as these market forces were developing, changes in the American lifestyle were also occurring. Increased flexibility in transportation is one of these changes. Most families own one automobile for every adult in the household, presenting a non-working spouse with many choices for retail shopping. Malls and shopping centers offer an automobile friendly venue for shopping and also offer a variety of shopping choices. These historical changes have placed the issue of automobile friendliness and parking availability as one of the most important issues in central business district development.

Although the retail mix of businesses is unarguably the most important factor in creating a vibrant and successful downtown in small cities, it is inexorably related to infrastructure issues, especially parking. Parking availability is a significant factor in location decisions for potential businesses and, concomitantly, for potential patrons of these businesses. Parking considerations for businesses that choose to locate in a mall or in an undeveloped tract of land are quite different

from those that choose to locate in an existing developed area like a small central business district. In the former, parking provision is either resultant from an arrangement with the mall or shopping center management or the purchase of a tract of land large enough to support the business's anticipated parking requirements. In the latter, the purchase of a parking tract is often unavailable or prohibitively expensive and the utilization of existing private parking is limited by finding an adjacent landowner willing to lease. Consequently, the availability of *public* parking has a far greater importance in small city central business districts.

Since the development of the retail mix is usually reserved for market forces, public planners have focused much of their attention on the infrastructure that supports business development. Parking matters are generally at the top of the list of infrastructure issues. This report is intended to contribute to an understanding of the public parking infrastructure in the downtown district of Elizabethtown Borough in south central Pennsylvania. The report is intended to serve as (1) a resource for Borough government to aid in future planning and development decisions, (2) a resource for downtown property owners who are seeking business tenants for their properties, and (3) a resource for potential business start-ups in assessing their location decisions. The report describes public parking utilization at peak periods in the central business district.

## **2. Elizabethtown Borough**

Elizabethtown is a borough located in Lancaster County Pennsylvania. It is equidistant (about 20 miles) from four small metropolitan areas: Harrisburg, Lancaster, York, and Lebanon. Elizabethtown is also located about 10 miles from Hershey, Pennsylvania. The Penn State College of Medicine, the Milton S. Hershey Medical Center, Hershey Resorts, and the Hershey Company are located in Hershey. Consequently, Hershey is a significant source of employment for nearby populations.

Elizabethtown is bordered by Mount Joy and West Donegal townships. Additionally, the local school district includes Conoy Township. The majority of the population in these three townships is integrated with the Borough, both socially and economically. Because of its proximity to four metropolitan areas, many residents of Elizabethtown are employed by businesses and institutions in these cities.

The population of the Borough was estimated to be 11,628 in 2011. The population has remained relatively stable since 2000. The borough consists of 2.6 square miles of land area, resulting in a population density of approximately 4,370 persons per square mile. About 95 percent of the population is white. The median age is younger than that of Lancaster County and Pennsylvania as a whole, largely a consequence of a disproportionate young adult population. About 40 percent of the housing units are rental units. The median family income is \$58,163 and per-capita income is \$19,883 (2006-2010). During the same time period, the poverty rate was estimated to be 11.2 percent, greater than that in Lancaster County but less than that in the state as a whole. Residents are disproportionately employed in the health care and education industries and underrepresented in manufacturing. Residents also, on average, commute about 20 minutes to work.<sup>10</sup>

Elizabethtown was historically a city of small manufacturers, some of which still exist. Currently, the economic base is dominated by Elizabethtown College, the Masonic Homes (retirement community), and M&M Mars Incorporated. The downtown shopping district is populated by small restaurants and food establishments, offices, and a mixture of other small businesses. No one type of business predominates. No other business districts are located immediately to the north, west, or east of the Borough. However, there is a substantial strip development district south of the downtown business district. Included in this district are two regional grocers, a chain pharmacy, a big-box store, three fast-food restaurants, and several other businesses.

In recent years, there have been a significant number of vacant storefronts in the downtown area. More recently, the number of vacancies has lessened, but business turnover is still substantial. Although interest in downtown never departs from the public consciousness; it has recently received some renewed energy. This, in part, is due to the formation of a new business group, *Market Street! Improving Business*, and several community-oriented web sites. It is in this environment that the current report was developed.

### **3. The Complex Issue of Parking**

The purpose of this report is to document the utilization of existing public parking in downtown Elizabethtown and its relationship to the current downtown and its future

development. The relationship between parking and development is complex and multi-dimensional. This complexity is largely a function of three factors:

1. Optimal public parking availability is not a constant. The optimum changes as the business and residential mix evolves and develops. The optimum is also contingent upon the manner in which private parking serves to diminish the demand on public parking. The utilization and availability of private parking is also subject to change. Although assessing the adequacy of capacity under current conditions is achievable, projecting future adequacy can only be accomplished under (speculative) assumptions.
2. Optimal public parking availability is not only contingent on the physical availability (probability of patrons locating vacant spaces) in the area as a whole, but also contingent on localized availability, i.e., there are geographic sub-patterns of availability.
3. Optimal public parking availability is not only contingent on its physical availability, but also depends upon the public perception of its availability. Public perception is a complex phenomenon and is affected by many factors. Public perception is difficult to measure and more difficult to assess its effect on patronage. Since these public perceptions are complex, it is also complicated to institute interventions to change them.

Current public parking availability has the potential to affect the patronage of businesses as well as the visitation rates for public events or casual usage. It also has the potential to affect future downtown development, since potential business owners will incorporate their observations about parking into their location decisions. All of these effects are subject to the three complexities described above. Consequently, understanding current utilization and capacity is an important matter.

It is difficult to underestimate the importance of the public's *perception* of parking adequacy. At the same time, it is difficult to underestimate the complexity of the manner in which these perceptions emerge. These phenomena are not well-studied. Consequently, most planners must rely on impressionistic observations, anecdotal evidence, and/or simple measurements of perceptions from a limited population. Unfortunately, an adequate study of perceptions would be cost prohibitive, have limited generalizability for the future, and may uncover too much variance in the dynamics of perception to justify the time and cost. In its place, an understanding of public parking perception can be developed by relying on general social theory. Such an understanding provides an important context for evaluating public parking adequacy. It is presented below.

Decision-making by individuals typically involves a comparison of costs and benefits of an action. In the case of more pedestrian actions that constitute much of everyday life, behavior is also guided by a loosely organized complex of habitual behaviors, cultural practices, background affinities or feelings, and serendipitous contexts. In varying degrees, this complex of phenomena creates a meaning that predisposes individuals to act in a specific fashion. Some combinations of these influences result in inconvenient or unpleasant feelings, while others are neutral or more pleasant. Accordingly, some combinations create a feeling that one will either gravitate toward or consider, while others create a feeling that one will avoid or are less likely to consider. It is usually not something that comes to the fore in cognition prior to the action; and if it does it is generally transitory. A more rational evaluation of the decision to act in a certain fashion is usually only entertained after the action, and then only when it becomes relevant for a future action or emerges as a subject in an interaction with another person. Of course this is not intended to describe all behavior, but it is the best description of repeated routine behaviors in everyday life. It's just doing life. If one understands behavior in this manner, then the important implication is that most behavior is subject to a variety of influences that combine with one another to stimulate behavior; that behavior then becomes routine or habitual through practice (doing and re-doing). As these behaviors become more habitual, they are even less subject to rational evaluation and are just "done".

How can this conception of everyday behavior inform our understanding of the public's perception of parking availability and its relationship to downtown patronage? First, we should note a few of the cultural influences, affinities, and habits that have some relevance for this matter: (1) the dominant cultural pattern and habit is to shop at a mall or shopping center, (2) the dominant practice of parking is in a parking lot, (3) parallel parking is a vanishing skill and not often practiced, (4) parallel parking, especially on a busy street, is a behavior to be avoided, (5) the dominant "concept" of the parking experience is to park in a space that includes an uncomplicated and predictable walking route to the destination (a simple plan), (6) people will gravitate toward predictability in their routine behaviors, and (7) one tends to evaluate components of a behavior in a manner consistent with their overall evaluation of that behavior. Second, factors that affect normal economic decisions should not be ignored. For example, the cost of parking plays a role in decision making. There is no reason to doubt the existence of a negatively-sloped demand curve for parking: as the price of parking increases, other things

remaining equal, fewer people will wish to use public parking. The ease of paying also is a factor: as the public increasingly uses credit cards--and smartphones--to make payments for a wide swath of goods and services, they carry with them less cash, including fewer coins. This can create problems for individuals when they encounter coin-operated parking meters. In certain cases, they may forego parking altogether and choose to take their business elsewhere. These factors are important: pricing may have more of an impact in the future if public parking charges increase and payment convenience is always a critical factor in this scenario, one that is an important component in the overall evaluation of the parking experience. We have disproportionately focused on the non-rational process surrounding the creation of the meanings about parking here, since these processes are less likely to be examined by planners.

These considerations provide the background for the public's evaluation of downtown parking availability. The taken-for-granted definition of parking is one that is uncomplicated with no significant choice required and with a predictable walking route. This definition is dominant and serves as a benchmark for the evaluation of downtown parking. Quite naturally, it often can result in a generally negative evaluation of the downtown experience. As part of that evaluation and as part of the natural tendency for cognitive consistency, there is also likely to be a tendency to view the availability of parking as limited. As many previous parking evaluations have discovered, this tends to be the case even when the actual physical availability is not limited.<sup>2,3,7</sup> This general evaluation and the less routine and predictable nature of downtown parking may also lead one to perceive that downtown parking requires an additional walking distance to their destination. This is the case despite the fact, as many have noted, that the actual walking distance to the destination is usually equivalent to mall parking.

Additionally, the power of an overall affinity toward an experience can shape other attitudes in a manner that is more consistent with that affinity and less consistent with the physical reality of the experience. If one has a strong desire to visit a destination and the trip has significant psychological rewards, then inconveniences are more easily forgotten and less likely to become a permanent part of their stock of knowledge. Conversely, if that strong desire is not present, inconveniences are more likely to be remembered and are more likely to become a part of the permanent evaluation. For example, consider a downtown patron who has made 10 trips to the area. On one trip, he was required to parallel park on-street. The experience was not pleasant, since it required him more than five attempts to locate the car roughly within the



parking space. If the trip did not provide significant psychic rewards, he is more likely to make that experience a permanent component of his parking evaluation; if the rewards were present, it is less likely to become permanent.

When downtown trips are in competition with mall or shopping center trips, the latter has a significant advantage. Not only are these trips more routine, but (arguably) they include a more predictable positive psychological return. Given that an average mall has three times the square-footage than is available in downtown Elizabethtown<sup>1</sup>, the mall trip can more consistently return significant psychological rewards. This inequality is subject to ameliorative interventions, however. If Elizabethtown's central business district can develop a retail mix that can provide consistent and significant rewards on a trip-by-trip basis, then the inequality will be lessened. If that were to occur, one would also predict that (given the same physical availability) parking evaluations would become more positive and trip frequency would increase. This hypothetical scenario is illustrative of the close relationship between downtown development and parking.

In summary, if one accepts that one's general evaluation of shopping and parking alternatives are largely a function of cultural practices, background affinities or feelings, and serendipitous contexts, then one can easily understand how the downtown parking experience (including perceived availability) has a significant probability of a negative evaluation. It remains to be determined the degree to which those parking perceptions affect patronage. The conceptual perspective adopted here suggests that the former does not precede the latter in a simple causal manner, rather it suggest that the two evolve together.

The conceptual understanding of parking behavior presented above stresses the importance of cultural practices, background affinities or feelings, and serendipitous contexts in its etiology. It does not dismiss the direct effect of physical realities as an important factor in its development nor does it dismiss the role of rational decision-making either. Rather, it adds these pre-rational factors to the mix and considers them at least as important as the rational and physical. In so doing, it helps explain some of the anomalies between perceptions and the physical realities. It also provides a conceptual orientation that may guide future interventions. When such an orientation is adopted, it helps avoid over-simplified strategies and interventions clouded by advocacy. These can interfere with the effectiveness of such interventions.

#### **4. Standards and Experience of Similar Communities**

Since optimal use of resources is always a concern, the preferred utilization rate should provide facile availability while, at the same time, not waste resources. Occupancy rates at or close to 100 percent are generally considered undesirable because motorists must hunt for available parking.<sup>13</sup> Preferred utilization rates of 80-85 percent on-street and about 90 percent off-street have been suggested.<sup>3,13</sup> In many circumstances, these standards may be on the high side when the public perception of parking availability and the promotion of patronage are considered. In any event, the optimal rate should be near that range.

Recommended standards for the amount of parking needed vary considerably and are offered in different forms. They may take the form of recommendations for a district as a whole (e.g., 2.0 to 2.2 parking spaces per 1,000 square feet of building floor area<sup>4</sup>), for a specific business type, or some other form. These types of recommendations are most appropriate for planning a business venture or for site plan review by planning oversight agencies. Since business mixes in a district are subject to change, an overall recommendation can serve only as a “ballpark” figure. This is especially true in smaller districts, like Elizabethtown, where a single change of business can radically alter its parking needs.

The primary goal of instituting metered parking in Elizabethtown was to encourage a turnover in utilization. Turnover rates in other small cities have been reported to be in the one hour to 1.5 hour range. Turnover was not a part of the current study.

Towns similar in size to Elizabethtown report utilization rates at peak periods of about 75 percent with some variance by geographic sub-areas and between on and off-street rates. Some have reported peak rates as low as 53<sup>7</sup> percent and as high as 80 percent overall<sup>2</sup>. In general, peak utilization rates occur around noon and again in late afternoon. These patterns are, of course, quite variable and can be seasonally, as well as, geographically dependent.

In the current study, utilization rates will be determined for the overall area, for geographic sub-areas, and by type of parking and type of space. The rates provided here are not intended to measure the departure from an optimum level, for that level is subject to debate. Rather they are intended to identify if the parking supply is severely over-utilized or severely under-utilized. The former demands some immediate attention, while the latter suggest a re-evaluation of existing land use.

## 5. Study Area and Methods

In this report, public parking utilization was observed and tabulated for metered spaces in the core downtown area (See Map 1). This area consists of the segment of the Market Street corridor extending from just north of High Street to the U.S. Post Office near Washington Street. The area also includes the adjacent blocks on High Street both east and west of Market St. The study area includes most metered spaces in the downtown. Some parking spaces were excluded from the observations for observer safety or labor availability reasons. These include the lot immediately behind Folklore Coffee and a few on-street metered spaces along (one-way) Park Street adjacent to Market Street.

Map 1: Study Area



This study was limited to public metered parking in the core downtown area. Private parking is also available in the area. Private parking, in general, is not available to the public-at-large or is not signed as such. Consequently, it was not considered as part of this study. These private spaces do have an impact on utilization of the public spaces, however. They may divert

parking from public spaces when these spaces are owned or managed by downtown businesses. In addition, some businesses have agreements with other organizations to utilize their surplus parking. Most notable among these agreements are spaces provided by the United Church of Christ and the First Church of God. However, these lots are not marked as available to the public.

The parking spots designated for study were partitioned into seven parking areas. These areas include designed parking lots and a “natural” partition of the on-street spaces on Market Street. The seven areas are described below:

1. The lot located where Vine Alley intersects with the east side of Market Street. There are 14 spaces in this lot, including one handicapped space. This lot was labeled as “Subway”.
2. The lot on the east side of North High Street adjacent to the Heritage House. There are 13 spaces in this lot, including one handicapped space and two short-term spaces. The remainder of the spaces are reserved for long-term parking. This lot was labeled as “East High St.”.
3. The lot behind the Elizabethtown Library bordering Peach Alley opposite the designated library parking. There are 34 spaces in this lot, including two handicapped spaces and one short-term space. This lot was labeled as “Library”.
4. The lot adjacent to the End Zone and Highlander Cleaners. There are 24 spaces in this lot, including two handicapped spaces and two short term spaces. This lot was labeled as “End Zone”.
5. The on-street parking spaces on the east side of North Market Street in front of Folklore Coffee. There are seven spaces in this area. This area was labeled as “Market St. A”.
6. The on-street parking spaces on the west side of South Market Street from the square southward. There are 17 spaces in this area. This area was labeled as “Market St. B”.
7. The on-street parking spaces on the east side of South Market Street from the square southward. There are 17 spaces in this area, including one handicapped space. This area was labeled as “Market St. C”.

Observers visited all designated spaces and recorded the occupancy status of each space. The observations were made twice daily (Monday through Friday) during the months of May and April, 2013. Previous studies have indicated that, excluding idiosyncratic utilization areas, the peak utilization periods were the lunch hour and the close of the business day.<sup>2-9,13</sup> This was also

our expectation for Elizabethtown. Consequently, the observations were made during the noon hour and the 5:00 p.m. hour. The observations were then tabulated noting the location and the characteristics of the parking space.

## 6. Parking Utilization Results

On average, public spaces in the downtown area are 61.6% occupied during the noon hour and the five p.m. hour on weekdays (Table 1). Off-street parking is utilized at a slightly greater rate than the on-street parking. The short-term spaces and handicapped spaces are also less utilized than the average space. This is part of the design for these types of spaces: short term spaces are designed to have greater turnover and handicapped spaces are designed to be available when needed.

Table 1: Average Occupancy by Type of Parking (n=5961)

Type of Parking	Average Occupancy	Statistical Test <sup>1</sup>
On-Street	55.9%	chi-square=35.501, df=1, p=0.00
Off-Street	64.1%	
Short-term	55.8%	chi-square=24.078, df=2, p=0.00
Regular-term	62.8%	
Long-term	52.2%	
Handicap	35.5%	chi-square=102.196, df=1, p=0.00
Not Handicap	63.2%	
Total	61.6%	

The five p.m. hour exhibited higher utilization than the noon hour (Table 2). Monday was the weekday with the lowest parking utilization rate and Thursday had the highest rate.

<sup>1</sup> The statistical test used here indicates if the differences between categories can be attributed to random sampling error. If the value for “p” is less than or equal to 0.05, then we treat the differences as “real” and unlikely to be caused by random sampling error. This kind of test is similar to the “margin of error” reported in polls.

Table 2: Average Occupancy by Time of Day and Day of Week (n=5961)

<b>Time/Day of Week</b>	<b>Average Occupancy</b>	<b>Statistical Test</b>
Noon Hour	59.0%	chi-square=17.182, df=1, p=0.00
5:00 p.m. hour	64.2%	
Monday	49.7%	F=106.703, df=4, p=.000
Tuesday	62.6%	
Wednesday	63.8%	
Thursday	70.6%	
Friday	60.7%	
Total	61.6%	

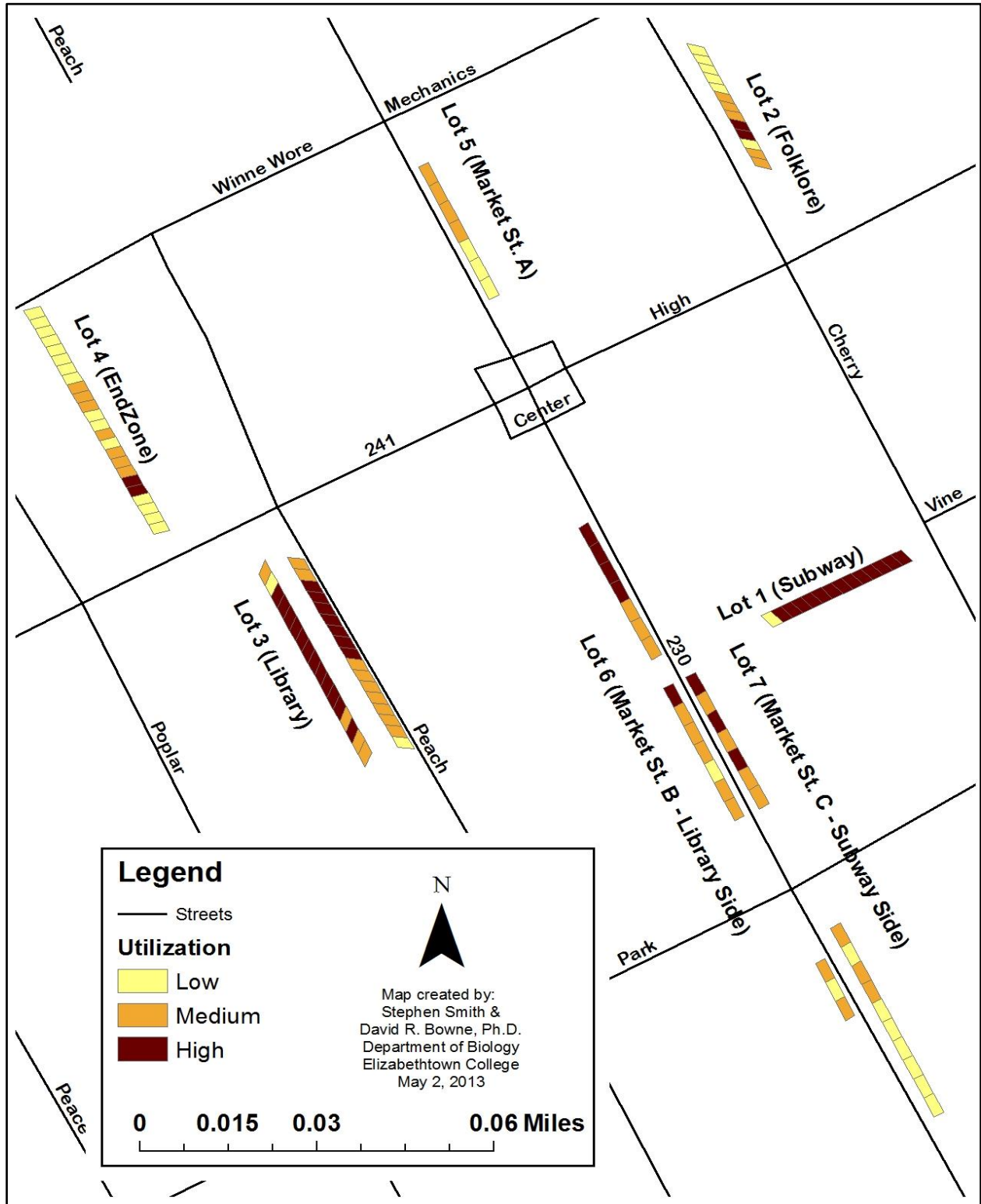
There was significant variation in the utilization rates by area (Table 3). The off-street subway lot exhibited the highest rate by a substantial margin. The End Zone lot and the on-street parking along the north portion of Market Street (A) had the lowest utilization rates. The Library lot had higher than average utilization, while Market Street C and the East High Street lot exhibited lower than average utilization.

Table 3: Average Occupancy by Parking Area (n=5961)

<b>Parking Area</b>	<b>Average Occupancy</b>	<b>Statistical Test</b>
Subway	82.8%	chi-square=568.541, df=1, p=0.00
East High St.	52.8%	
Library	76.4%	
End Zone	41.7%	
Market St. A	45.5%	
Market St. B	65.5%	
Market St. C	52.4%	
Total	61.6%	

The utilization differences by parking area may also be observed in Map 2. The map indicates the relative utilization rate on a space-by-space basis for the study area. It is apparent from the map that the Subway and Library lots have the highest utilization and the periphery lots the lowest. In the map, the low category ranges from 4 to 45 percent, the medium category from 46 to 73 percent, and the high category from 74 to 96 percent. The actual percentages for each parking spot are presented in Appendix 2 of this report.

Map 2: Relative Parking Utilization for Individual Spaces in the Study Area<sup>2</sup>



<sup>2</sup> Lot 2 labeled as “Folklore” in this map is referred to as East High Street in this report.

The Library lot and the End Zone lot were measured to have the greatest differences in utilization between the noon hour and the five p.m. hour (Table 4). The Subway lot exhibited consistently high utilization throughout the day. Differences in the other areas were present but less significant than the two high contrast lots.

Table 4: Average Occupancy by Parking Area and Time of Day (n=5961)

Parking Area	Time of Day		Total	Statistical Test
	Noon Hour	5:00 p.m. Hour		
Subway	82.6%	83.0%	82.8%	Each partial table has a p value of 0.000
East High St.	50.5%	55.2%	52.8%	
Library	71.1%	81.9%	76.4%	
End Zone	36.3%	47.2%	41.7%	
Market St. A	47.4%	43.5%	45.5%	
Market St. B	61.9%	68.0%	65.0%	
Market St. C	55.5%	49.6%	52.4%	
Total	59.0%	64.2%	61.6%	

Parking utilization on Monday was consistently the lowest of any weekday (Table 5). This was true for each of the parking areas. With the exception of Monday, the Subway lot exhibited consistently high utilization throughout the week. Variance by day of the week existed for the other areas and may be a consequence of unique events during the study period or routinely scheduled events.

Table 5: Average Occupancy by Parking Area and Day of Week (n=5961)

Parking Area	Day of Week					Total	Statistical Test
	M'day	Tuesday	W'day	Thu'day	Friday		
Subway	71.4%	80.4%	87.1%	88.9%	86.5%	82.8%	Each partial table has a p value of 0.000
East High St.	29.9%	57.7%	58.2%	59.1%	57.3%	52.8%	
Library	64.1%	76.7%	81.5%	88.9%	69.9%	76.4%	
End Zone	31.0%	44.2%	40.4%	50.5%	41.7%	41.7%	
Market St. A	39.7%	41.7%	44.3%	55.6%	47.6%	45.5%	
Market St. B	50.4%	68.5%	64.4%	75.6%	64.7%	65.0%	
Market St. C	48.3%	51.4%	53.2%	57.5%	51.5%	52.4%	
Total	49.7%	62.6%	63.8%	70.6%	60.7%	61.6%	



## 7. Discussion and Recommendations

### *Summary of results*

Overall, results from the parking utilization analysis indicate that public parking in downtown Elizabethtown is neither significantly over-utilized nor significantly underutilized. The average utilization rate of 61.6 percent is slightly lower than that reported by other small cities. An overall rate of this magnitude is an indication that the area can accommodate additional downtown visitors who arrive by motor vehicle. However, the study was not able to include observations on Saturday afternoon, which arguably is the period that may have the highest utilization. The study also did not include observations during special events, such as a municipal parade. It is apparent from past experience that parking during these events is at capacity for both public and private spaces. It has been observed that visitors at these events seek parking outside of the downtown area. This may be significant if an event such as Second Friday continues to grow in popularity.

There is some variation in utilization by area. Most significantly, the Subway lot was measured to consistently have the highest utilization. The Subway lot is adjacent to three popular restaurants, a significant factor in its high utilization rate. Also contributing to its high utilization rate, the Subway lot is located in a core area of downtown commerce and is highly visible from the street. The on-street parking located in the vicinity of the Subway lot has a significantly lower utilization rate. This difference is most likely due to the public's disaffinity toward parallel parking on a busy street. The Library lot also has a higher than average utilization rate. In part, this is likely due to use of the lot by nearby residents who do not have access to parking associated with their residence. The Library lot is the off-street parking area with the greatest number of spaces. The off-street lots closer to the perimeter of the downtown area (East High St. and End Zone) have consistently low utilization.

Off-street parking is preferred over on-street parking. The east side of Market St. is the exception. This area exhibits an intermediary utilization rate. The five p.m. hour is the busiest time of day. This is true for most of the areas with just a few exceptions. There is also variance in utilization rates by the day of the week. Monday is consistently the lowest utilization day and Thursday the highest.

Despite variance in rates by area, time of day, day of week, on-street status, and space status; the general observation from this study is that parking capacity is not being strained nor is it significantly underutilized. The only area that is approaching capacity is the Subway lot.

### *Current adequacy*

An enlightened evaluation of current parking adequacy would be well-served by considering more than the capacity of the parking stock within the context of parking demand (utilization)<sup>3</sup>. The parking stock capacity is unarguably at the core of any evaluation of adequacy. It is also true that the sufficiency of parking capacity is a necessary condition for any measure of adequacy. Considered alone, one might want to conceive of this capacity as “physical adequacy”, since it focuses solely on the physical infrastructure. However, the goal of providing public parking is not just to assure its existence, but to facilitate downtown commerce and to support visitation for community events. In order to fulfill these goals, the public must be aware of their parking options and consider these options viable in their effort to fulfill their plans. When one considers these factors as a component of adequacy, it results in a concept that more closely addresses the implicit goals of parking provision. One might want to conceive of this conceptual approach to adequacy as “functional adequacy.”

Although an evaluation of “physical adequacy” is relatively easy to accomplish, an evaluation of “functional adequacy” is not a simple task. As previously discussed in this report, measuring public perceptions about parking is cost-prohibitive and quite complex. The lack of a definitive and scientific measurement of perceptions does not imply that a general observation cannot be made, nor does it imply that well-planned interventions to improve “functional adequacy” cannot be designed.

Results from interviews with downtown business owners suggest that a frequent, and often principal, concern of their patrons is difficulty in finding acceptable parking. This information provided by business owners is consistent with results from a survey of local

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<sup>3</sup> The cost of parking in the central business district is low. It is unlikely to play a major factor in people’s decisions to park downtown, although the total reliance on coin-operated parking meters may be an increasing source of annoyance for customers inured to paying with credit cards and smartphones. Many parking meters allow one to park for 30 minutes for 5 cents, or an hour for 10 cents. In some cases, one can park for 5 hours for 25 cents. This study does not consider the optimal fee structure—viz., what is the appropriate fee to be charged for parking in particular locations, or at particular times, or for different lengths of time? These are questions the borough may wish to consider for future planning purposes.

residents. This survey was recently conducted by the Elizabethtown Journal (see Appendix 1). In that survey 59 percent of respondents indicated that they “sometimes” or “frequently” had difficulty in securing parking. Additionally, 47 percent rated the overall adequacy of parking as “inadequate”. Finally, anecdotal evidence suggests that parking in the downtown area is a concern for a significant number of Elizabethtown area residents. The extent to which these public attitudes are consistent with the actual task of parking is debatable. This research indicates that the physical availability of parking is not consistent with such perceptions. Nonetheless, the perceptions of local residents are real and must be taken into account. They constitute an important component of the functional adequacy of the parking stock. As was discussed earlier in this report, these attitudes are complex and not easily changed.

From a pure infrastructure perspective, the parking stock in the downtown area is adequate. From a “functional adequacy” perspective, it is most likely sub-optimal. With respect to the consideration of and planning for community social and economic development, it would be prudent to consider not only the physical adequacy of downtown parking but to also consider its functional adequacy.

#### *Future adequacy and effects on development*

In the absence of a detailed plan for future development in the downtown area, an explicit parking development plan is a dubious endeavor. It is, however, an uncontested truth that parking adequacy will affect development and development will affect parking adequacy. Even though development and parking are moving targets with an uncertain future, a few observations are worthy of consideration.

The first observation is that the segmented ownership of property in downtown Elizabethtown is a constraint on development flexibility. This observation was first offered in a study contracted by the Elizabethtown Economic Development Corporation<sup>1</sup> (EEDC) and later re-asserted by two essays on the future of downtown development.<sup>11,12</sup> In both analyses it was asserted that the lack of coordination in development activity will severely restrict both the flexibility of development activity and its effectiveness. In the former, it was asserted that segmented ownership inhibits the potential to develop a property to its maximum potential and, in the latter, that the segmented control of property inhibits the development of an identifiable

niche needed for successful development. This segmentation not only affects development in general, but it also affects the development of the parking capacity needed to accompany it. For example, the recruitment of an appropriate anchor business would require the development of significant additional parking. Popular restaurant franchises such as the Olive Garden or Red Lobster usually require that their franchisees provide parking for at least 100 patrons. The property to provide this quantity of parking is certainly unavailable in the very core of the downtown area. The most feasible option to develop a property with this type of requirement is to focus on the area bordered by Market Street, High Street, Bainbridge Road, and the railroad tracks. This strategy was suggested in the EEDC report. Still, in the presence of segmented ownership and in the absence of a consortium of coordinated owners, such development is still not possible, even in this area.

Second, the importance of the symbiotic relationship among physical parking adequacy, functional parking adequacy, developmental potential, and the (perceived) attractiveness of the downtown is very important. Each of these phenomena tends to evolve in the same direction as the others. For example, functional parking adequacy is not only affected by physical parking adequacy. It is also affected by the requirements of future development. Moreover, the public's perception about parking is, in part, framed by their perception of the downtown as an attractive destination. That is, the perceptual component of functional adequacy is framed by the need and desire to make a visit. The stronger the need and desire, the less likely it is that negative evaluations of the parking experience will come to the fore. At the same time, functional parking adequacy not only affects the health of the existing business mix, but also affects future development when it is considered as part of the location decisions by potential new businesses. These types of cross-influences are present with all of the phenomena mentioned above.

At present, a well-defined development plan for the downtown is not being pursued. Without a well-defined development plan, parking requirements cannot be accurately estimated. However, it is certain that parking will be an important component of future development. It is also certain that its relationship to development is more complex than just assuring its abundance.

## *Recommendations*

- Under the current utilization scenario, there is no need for additional public parking in the downtown area. Utilization patterns are subject to evolve as the business mix changes. If, in the future, there is any indication that public parking utilization has increased significantly, it would be prudent to update this report with new data. This can be accomplished quite inexpensively with volunteer or low-wage labor.
- The interrelationships of downtown development with parking and the “public good” are complex and multifold. The defining factor in this complex formula is planning for the public good. Specific decisions about parking and economic development should follow a course defined by an articulated plan for the well-being of the community. It has been suggested elsewhere that the identification of a niche that serves the public interest should be identified for the downtown business district. Attention should be focused there as a first step. An economic development plan(s) should follow and a parking development plan(s) should be developed at the same time.
- Addressing the “segmentation” problem will contribute a great deal to the flexibility of future development and the provision of additional parking. It has been suggested elsewhere that options to address this problem include: (1) development of significant public support, (2) locating a single developer interested in many properties and/or businesses, or (3) developing a consortium of developers or development groups working to develop a single plan.
- Under current circumstances, additional infrastructure is not required. However, it is likely that improvements in functional adequacy may increase the patronage of the downtown area. Interventions intended to make these improvements are not simple nor are they easy to develop. They also may be cost prohibitive given the uncertainty of their effects. However, there are some simple interventions that can contribute to a friendlier parking environment. These are easily planned and not cost prohibitive. These interventions include improvements in signage and wayfaring assistance. The Borough has recently improved the signage for parking, although additional improvements and integration are possible. Wayfaring is critical at times when parking capacity is strained. Travelling between parking areas in an attempt to find available parking requires wayfaring. Any signage or the offering of public information that defines wayfaring paths would be positive. An inherent issue in wayfaring in the downtown area is that “circling the block” paths in the downtown area are taxing when evaluated within the context of a simple trip.
- Although interventions to change public perceptions about the availability and ease of parking can contribute significantly to “functional adequacy”, successful interventions are likely to be difficult to plan and likely to be cost prohibitive. Nevertheless, it is critical to consider the importance of these perceptions and

their complexity in any planning effort concerning parking development. By doing so, inefficient use of time and resources can be minimized. For example, when considering a public campaign advocating the ease of downtown parking, it should be evaluated within the context of how these perceptions emerge and their intransigence. Realistic outcomes are more likely to be embraced.

Appendix 1:  
Attitude Survey Results

A brief attitude survey inquiring about the public’s perception of public parking in the downtown area was conducted in collaboration with a local on-line newspaper, the Elizabethtown Journal. The survey consisted of two questions with pre-coded responses and an “other” response option.

The research design did not include probabilistic sampling from a predetermined population. The sample consisted only of those readers of the paper who chose to answer the questions; i.e. the sample was a self-selected sample. Because of this, the results of the survey should not be considered a scientific representation of the public’s attitudes concerning public parking. Rather, the results should only be interpreted as suggestive of the range of attitudes existing in the public. The results are presented below:

1. Please indicate your response to the following question: How often do you experience difficulty in finding a parking place in Downtown Elizabethtown?

<b>Response</b>	<b>Frequency</b>	<b>Percent</b>
Rarely or never	17	37%
Sometimes	12	26%
Frequently	15	33%
Other	2	4%

“Other” Answers:

1. Don't park downtown (unless I run into the Library and then I use their CROWDED lot).
2. Don't go downtown.

2. Please rate the overall adequacy of the availability of public parking in downtown Elizabethtown. Please choose the response that is closest to your evaluation.

<b>Response</b>	<b>Frequency</b>	<b>Percent</b>
Adequate	23	53%
Inadequate	20	47%
Other	0	0%

The percentage of survey respondents who perceive that downtown parking is adequate is nearly the same as those who perceive it to be inadequate. Similarly, approximately equally



number of respondents report that finding a parking space is (a) “rarely or never” difficult, (b) “sometimes” difficult”, and (c) “frequently” difficult. This evidence suggests that although a significant number of local residents perceive downtown parking to be non-problematic; a significant number consider it to be problematic. As a consequence of the sampling procedures, the reader is cautioned not to treat these results as scientific estimates of the percentages that exist in the community as a whole. Although these estimates should be treated as more anecdotal than scientific, they do provide some evidence that both positive and negative evaluations exist in the community and that both types of evaluations are likely to exist in significant numbers.

Appendix 2:  
Space by Space Average Utilization  
(with Borough assigned meter number)

Subway Lot

Market Street
35%-110
94%-111
96%-112
84%-113
92%-114
86%-115
84%-116
90%-117
86%-118
78%-119
82%-120
84%-121
94%-122
78%-123
Cherry Alley

East High Lot

High Street
55%-none
67%-125
35%-none
86%-128
78%-129
59%-130
73%-131
59%-132
45%-133
45%-134
32%-135
17%-136
33%-137
Mechanics Alley

Library Lot

High Street	
61%-180	73%-213
37%-181	69%-212
92%-182	86%-211
96%-183	90%-210
88%-184	88%-209
94%-185	78%-208
90%-186	86%-207
94%-187	80%-206
94%-188	76%-205
86%-189	69%-204
94%-190	65%-203
92%-191	69%-202
84%-192	55%-201
65%-193	65%-200
76%-194	67%-199
73%-195	51%-198
69%-196	45%-197
Vine Alley	

End Zone Lot

High Street
40%-160
4%-161
34%-none
40%-none
83%-164
80%-165
71%-81
63%-166
59%-167
43%-168
49%-82
43%-169
31%-170
57%-171
51%-83
67%-172
33%-173
33%-174
24%-84
22%-175
22%-176
20%-177
12%-85
16%-178

Market St. A Lot

High Street
61%-13
47%-11
49%-9
51%-7
33%-5
45%-3
33%-1
Groff's

Market St. B and C

High Street	
81%-16	83%-17
76%-18	70%-19
79%-20	83%-21
76%-22	70%-23
64%-24	83%-25
62%-26	72%-27
67%-28	72%-29
83%-32	64%-31
71%-34	42%-33
68%-36	49%-35
61%-38	47%-37
44%-40	31%-39
58%-42	31%-41
58%-44	31%-43
62%-46	18%-45
38%-48	24%-47
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