

DOWNTOWN PARKING PLAN & FEASIBILITY STUDY (FINAL REPORT)

THE VILLAGE OF JOHNSON CITY

SUBMITTED ON THE 26TH DAY OF NOVEMBER, 2024



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1. INTRODUCTION

In the fall of 2023, The Village of Johnson City (“the Village” or “Johnson City”) sought a comprehensive assessment of parking conditions and operations to support the continued renaissance of its downtown. The Village awarded the contract to execute this study to the team at DESMAN Inc. (“DESMAN”) in early 2024.

With the construction of the Binghamton University health sciences buildings, expansion of the Wilson Medical Center and United Health Services (UHS) campus, designation as an Innovation District (“iDistrict”), and other redevelopment initiatives, the Village needs to align its public parking infrastructure with these and other improvements to the downtown. Tagged as the “Health and Culture District” where businesses and anchor institutions will be linked through “art, innovation, culture, and placemaking,” the public on- and off-street parking facilities are required to meet existing and projected parking needs as the Village continues to grow with its partnered developers in the area.

The proposed scope of work had six progressive tasks designed to culminate in a plan to guide the provision and management of public parking services into the future. The process is illustrated in **Figure 1**, below:

Figure 1: Parking Plan Project Process



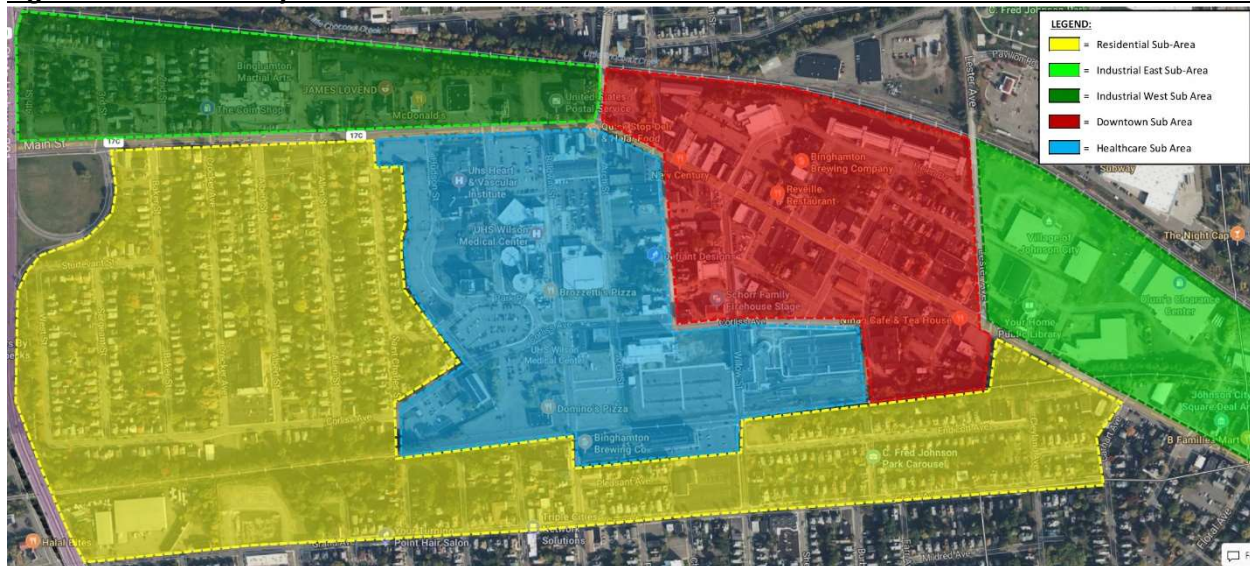
The scope of work and findings from each task are explored in detail later within this report.

In addition, DESMAN also executed a program of public outreach to solicit feedback at key points. The outreach consisted of stakeholder interviews, an online survey effort, and a series of three public workshops. Details and analysis from the stakeholder meetings and survey results are also included within this report. The public workshops, while well attended, did not produce any notable questions or issues with the task summaries presented and are therefore referenced within this report, but not summarized as they consisted primarily of the consultant’s presentations to the public.



The Village of Johnson City, in collaboration with DESMAN, defined an overall study area at an initial project scoping meeting. In collaboration with Village leaders, DESMAN divided the study area into four sub-areas as shown in **Figure 2**, below.

Figure 2: Defined Study Area



The sub-areas were defined by the predominate land uses and/or core institutions contained therein. The boundaries of each sub-area were commonly defined by major roadways and/or geographic features wherever possible. As shown on the preceding figure, each sub-area is color-coded to assist the reader in reviewing the core data and analysis generated within this study. The four sub-areas include:

- The **Residential Sub-Area** (in **yellow**), which contains both single-family and multi-family housing interspersed with commercial and institutional properties. It is bounded roughly by Route 201 to the west, Main Street to the North, Park Street to the east, and Grand Avenue to the south.
- The **Health Care Sub-Area** (in **blue**), which encompasses the UHS Wilson Medical Center campus, ranges from Hudson Street to the west, Main Street to the north, Ozalid Road to the east, and Endicott Avenue to the south. This area also includes Binghamton University's Pharmaceutical School and Decker School of Nursing.
- The **Downtown Sub-Area** (in **red**) is a mixed-use area encompassing retail shops, restaurants, professional offices, single- and multi-family housing. This area is bordered by the Arch Street Overpass to the west, an active rail line to the north, Lester Avenue to the east, and the Health Care Sub-Area to the south. Notable buildings within the Central Downtown include the George Korutz Justice Building and the Victory Lofts.
- The **Industrial Sub-Area** (in **green**) encompasses primarily commercial and institutional land uses with some medical offices and residential at the far western end. The eastern half of this sub-area is bounded roughly by Lester Avenue, an active rail line, Wells Avenue, and Main Street. The western half is bounded by Route 201, an active rail line, the Arch Street Overpass, and Main Street.

This report is organized into three principal sections as follows:

- The **Summary of Findings** section provides a high-level review of work performed, conclusions, and general recommendations arise from each of the tasks. This section is designed to provide the reader adequate information to understand the key issues observed during analysis, which have given rise to the recommended plan.
- The **Proposed Parking Plan** developed by the consultants, lists out the individual initiatives in order of recommended implementation to guide the Village of Johnson City in managing parking in the downtown area over the next decade.
- The **Appendices** detail technical reports for each task performed within the commission of the study and are included to provide the reader with additional supporting information and analysis.

This study was executed by DESMAN, Inc. with support from PAEverly Architect, PLLC and MCV Associates, Inc., an Endesco Inc. company). This study was funded in part by the Appalachian Regional Commission Area Development Grant and an Empire State Development Urban and Community Development Program Capital Grant. This consulting team wishes to acknowledge the special contributions from the following individuals who managed the process on behalf of the Village of Johnson City and provided critical insight, feedback, and support:

- Stephanie Yezzi, CFM – Director of Planning, Village of Johnson City
- Allison Button – Community Development Administrator, Village of Johnson City
- Michael Mason, Administrative Lieutenant – Village of Johnson City Police Department



2. SUMMARY OF TASK FINDINGS

The work culminating in this report was organized into a series of incremental tasks designed to address each of the Village's concerns and objectives as outlined in the original Request for Proposals. The initial work products from these tasks were included in a series of detailed technical task reports submitted to Village leadership for initial review, revised accordingly, and posted on the Village's Planning Department webpage for public access and consumption. These task reports are included within this report as Appendices. The following section summarizes major findings and conclusions from each of the tasks driving the development of the proposed Parking Plan.

Existing Conditions

Working within the defined study area and sub-areas previously presented in Figure 2, DESMAN and MCV performed a series of inventories to establish the existing parking supply and typical utilization of that supply during the course of a representative weekday and weekend day. Parking supply inventories were conducted in March and early April of 2024 by using overhead drone footage as well as ground personnel. Occupancy counts were executed on Thursday, April 25 and Saturday, April 27, 2024 by using drones and ground personnel to establish current utilization trends across the inventoried parking supply.

A total of 6,497 parking spaces were inventoried across the defined study area, with the largest concentration of supply located in the Healthcare Sub-Area shown in Figure 2. Much of the parking supply in this sub-area was privately-owned by United Health Services (UHS), SUNY Binghamton, and other private businesses and residences. The Downtown Sub-Area contained just 19% of the total parking supply, but held the majority of off-street parking lots owned by the Village and open to the general public. Less than one-third of all the parking spaces within the study area were owned by public agencies, and only 23% of the total supply was accessible to the general public, much of that in the form of curbside (on-street) spaces.

Parking occupancy counts were performed at different intervals within each sub-area as follows:

- Residential Sub-Area: occupancy counts were performed at 10:00 AM and again at 8:00 PM on the representative weekday (Thursday, 4/25) and weekend day (Saturday, 4/27) to capture typical parking utilization at a period when demand from commercial and residential land uses were reasonably stabilized (10:00 AM) as well as period when residential land uses were heightened (8:00 PM).
- Industrial Sub-Areas: occupancy counts were performed at 8:00 AM and again at 5:00 PM on the representative weekday (Thursday, 4/25) and weekend day (Saturday, 4/27) to capture typical parking utilization at the start and end of typical business hours.
- Healthcare Sub-Area: occupancy counts were performed every odd hour between 7:00 AM and 5:00 PM on the representative weekday (Thursday, 4/25) and weekend day (Saturday, 4/27). Due to the mix of institutional, commercial, and residential land uses within this area, it was anticipated that occupancy could vary significantly during the course of a typical day, given that the average length of stay for these land uses was between two and three hours.
- Downtown Sub-Area: occupancy counts were performed every hour between 10:00 AM and 8:00 PM on the representative weekday (Thursday, 4/25) and weekend day (Saturday, 4/27). Due to the mix of commercial land uses within this area, it was anticipated that occupancy could vary



significantly during the course of a typical day, given that the average length of stay for these land uses was between one and three hours.

Within the Residential Sub-Area, the highest recorded rate of utilization was at 10:00 AM on Thursday, 4/25 when 21% of the total supply was occupied. As **Table 1** below shows, neither the off- or on-street supply appeared to be highly utilized.

Table 1: Summary of Residential Sub-Area Supply, Occupancy, and Utilization

Type of Parking	Supply	Observed Parking Conditions, 4/25 and 4/27							
		Thurs, 10:00 AM		Thurs, 8:00 PM		Sat, 10:00 AM		Sat, 8:00 PM	
		Occ	Util	Occ	Util	Occ	Util	Occ	Util
Off-Street	647	108	17%	63	10%	65	10%	63	10%
On-Street	725	186	26%	204	28%	220	30%	195	27%
TOTAL	1,372	294	21%	267	19%	285	21%	258	19%

Within the Industrial Sub-Area, the highest recorded rate of utilization was at 8:00 AM on Thursday, 4/25 when 28% of the total supply was occupied. As **Table 2** below shows, the on-street supply was more highly utilized throughout the observations, due to its small capacity, but neither the on- or off-street parking supply was utilized to the point where it could be perceived as 'full'.

Table 2: Summary of Industrial Sub-Area Supply, Occupancy, and Utilization

Type of Parking	Supply	Observed Parking Conditions, 4/25 and 4/27							
		Thurs, 8:00 AM		Thurs, 5:00 PM		Sat, 8:00 AM		Sat, 5:00 PM	
		Occ	Util	Occ	Util	Occ	Util	Occ	Util
Off-Street	999	279	28%	191	19%	246	25%	102	10%
On-Street	46	11	24%	21	46%	30	65%	34	74%
TOTAL	1,045	290	28%	212	20%	276	26%	136	13%

Within the Healthcare Sub-Area, the highest recorded rate of utilization was at 9:00 AM on Thursday, 4/25 when 62% of the total supply was occupied. As **Table 3** below shows, the off-street supply was more highly utilized, but neither the on- or off-street parking supply was utilized to the point where it could be perceived as 'full'.

Table 3: Summary of Healthcare Sub-Area Supply, Occupancy, and Utilization

Type of Parking	Supply	Observed Parking Conditions, Thursday, 4/25											
		7:00 AM		9:00 AM		11:00 AM		1:00 PM		3:00 PM		5:00 PM	
		Occ	Util	Occ	Util	Occ	Util	Occ	Util	Occ	Util	Occ	Util
Off-Street	2,612	1,356	52%	1,678	64%	1,662	64%	1,669	64%	1,237	47%	810	31%
On-Street	221	73	33%	84	38%	85	38%	87	39%	56	25%	29	13%
TOTAL	2,833	1,429	50%	1,762	62%	1,747	62%	1,756	62%	1,293	46%	839	30%

Type of Parking	Supply	Observed Parking Conditions, Saturday, 4/27											
		7:00 AM		9:00 AM		11:00 AM		1:00 PM		3:00 PM		5:00 PM	
		Occ	Util	Occ	Util	Occ	Util	Occ	Util	Occ	Util	Occ	Util
Off-Street	2,612	489	19%	482	18%	545	21%	512	20%	497	19%	461	18%
On-Street	221	36	16%	38	17%	54	24%	42	19%	45	20%	45	20%
TOTAL	2,833	525	19%	520	18%	599	21%	554	20%	542	19%	506	18%

There were some streets abutting the UHS campus, specifically Baldwin Street and Park Place, that were parked to, and at times, over capacity. Similarly, it was observed that some of the UHS lots contained more vehicles than parking spaces at times. However, a comparison of the supply contained within all



UHS and SUNY Binghamton lots against total observed occupancy across those facilities suggests that both institutions had ample parking supply to meet their needs overall. Similarly, an analysis of all of the cars parked in metered and free on-street spaces within the Healthcare Sub-Area relative to the total number of metered and free on-street spaces indicates that, in aggregate, there was more than enough of both kinds of on-street parking.

Within the Downtown Sub-Area, the highest recorded rate of utilization was at 4:00 PM on Saturday, 4/27 when 20% of the total supply was occupied. As **Table 4** below shows, the on-street supply was consistently more utilized than off-street facilities, which is consistent in downtowns where the most proximate spaces to most destinations are along the curb.

Table 4: Summary of Downtown Sub-Area Supply, Occupancy, and Utilization

Type of Parking	Supply	Observed Parking Conditions, Thursday 4/25															
		10:00 AM		11:00 AM		12:00 PM		1:00 PM		2:00 PM		3:00 PM		4:00 PM		5:00 PM	
		Occ	Util	Occ	Util	Occ	Util	Occ	Util	Occ	Util	Occ	Util	Occ	Util	Occ	Util
Off-Street	1,059	171	16%	175	17%	186	18%	196	19%	204	19%	199	19%	146	14%	125	12%
On-Street	188	40	21%	49	26%	47	25%	44	23%	47	25%	36	19%	41	22%	37	20%
TOTAL	1,247	211	17%	224	18%	233	19%	240	19%	251	20%	235	19%	187	15%	162	13%

Type of Parking	Supply	Observed Parking Conditions, Saturday, 4/27															
		10:00 AM		11:00 AM		12:00 PM		1:00 PM		2:00 PM		3:00 PM		4:00 PM		5:00 PM	
		Occ	Util	Occ	Util	Occ	Util	Occ	Util	Occ	Util	Occ	Util	Occ	Util	Occ	Util
Off-Street	1,059	150	14%	177	17%	138	13%	131	12%	159	15%	152	14%	194	18%	165	16%
On-Street	188	20	11%	44	23%	54	29%	47	25%	60	32%	65	35%	58	31%	48	26%
TOTAL	1,247	170	14%	221	18%	192	15%	178	14%	219	18%	217	17%	252	20%	213	17%

The Village's five public parking lots (Isabelle, Willow, Justice, Main Street, and "Avenue D") were in aggregate underused relative to their combined capacity (223 spaces), with the Willow Lot being the most used of the five facilities with up to 93% of its capacity filled during the busiest hours. In aggregate, the on-street supply also had low rates of utilization relative to the total capacity (188 spaces), even when comparing aggregate supply and occupancy relative to metered versus free spaces. However, utilization along both sides of Main Street between Arch Street and Lester Street was quite high consistently with certain block faces parked to full capacity at times.

A study of turnover across all the spaces within the Downtown Sub-Area rendered the following conclusions:

- Across the off-street supply (1,059 spaces) on Thursday, 4/25 the total number of vehicles that parked in these spaces was less than half of the total capacity and the average length of stay was roughly 3.4 hours per parked vehicle. However, during the same period, the portion of the off-street supply owned by the Village (247 spaces) parked as many cars during the course of the day as there were spaces, with an average length of stay of 2.6 hours. Additionally, the Willow Lot saw each of its 59 spaces turnover 1.75 times during the same day, with an average length of stay of just under 2.3 hours.
- Across the off-street supply (1,059 spaces) on Saturday, 4/27 the total number of vehicles that parked in these spaces was slightly more than half of the total capacity and the average length of stay was roughly 2.7 hours per parked vehicle. However, during the same period, the portion of the off-street supply owned by the Village (247 spaces) turned over 1.20 times, with an average length of stay of 2.0 hours and the Willow Lot spaces turned over more than 3 times during the same day, with an average length of stay of just under 2.0 hours.



- Across the on-street supply (156 spaces) on Thursday, 4/25 the total number of vehicles that parked in these spaces was over capacity (exactly 140%) of the total capacity and the average length of stay was roughly 1.9 hours per parked vehicle. The free on-street parking spaces turned over less than once during the day and had a typical length of stay of 2.2 hours, while the metered parking spaces turned over 1.75 times that day with an average length of stay of just under 1.8 hours. Roughly 4% of these parkers exceeded a six-hour length of stay, indicating they were in violation of posted time limits. Along Main Street, where the time limit is two hours, typical length of stay was just over 1.3 hours and those spaces turned over average of roughly 2.8 times per day.
- Across the on-street supply (156 space) on Saturday, 4/27 the total number of vehicles that parked in these spaces was slightly less than the total capacity and the average length of stay was roughly 3.3 hours per parked vehicle. The free on-street parking spaces turned over less .33 times during the day and had a typical length of stay of 4.7 hours. The metered parking spaces turned over 1.1 times that day with an average length of stay of just over 3.1 hours. Roughly 11% of these parkers exceeded a six-hour length of stay, indicating they were in violation of posted time limits. Along Main Street, where the time limit is two hours, typical length of stay was just under 2.7 hours and those spaces turned over average of roughly 1.4 times per day.

Summary conclusions from this task included the following:

1. With the exception of certain UHS lots, private parking facilities are largely underutilized across the study area and represent a potential resource to support future growth and development if a means to integrate them can be established.
2. While none of the sub-areas experienced shortfalls of available space, observed utilization around the UHS campus was very high, both within the private lots as well as nearby on-streets spaces, including those in primarily residential areas. There is plenty of capacity within the UHS parking supply to meet observed demands.
3. In whole, the off-street parking supply owned and managed by the Village for the benefit of the general public is underutilized, however the Willow Lot appears to be highly used and sometimes even congested.
4. There appears to be a significant number of open on-street spaces across the study area, including the Downtown sub-area. However, the section of Main Street between Arch Street and Lester Avenue appears highly utilized. Turnover observations in this area indicate that on average the individuals parking there are abiding by posted time limits on weekdays and turning the spaces over consistently, but on weekends the length of stay is over the posted time limit consistently and turnover is roughly half of what is observed on weekdays. This would suggest there is an issue with parking enforcement on weekends.

Additional detail on the preceding analysis can be found in the task report included as **Appendix A** to this report.

Future Needs

To project parking needs in the future, DESMAN developed a parking demand model specific to the Village of Johnson City by drawing from Shared Parking methodology recommended by the Urban Land Institute as well as various factors researched, published, and advanced by the Institute of Transportation



Engineers, the American Planning Association, and other agencies. The objective of this approach was to create a model that could be calibrated to match observed occupancy across the study area, assuring projections were appropriate for and accurate to the local market, and that the model had the flexibility to project parking demand as a dynamic entity, subject to change according the land uses added to the market by future development as well variations in demand caused by time of day, day of week, and time of year for each land use within the market.

DESMAN used the calibrated model to project parking demand for each sub-area at three benchmarks:

- Under *current conditions*, factoring in land uses that were active and occupied as of April 2024. In some cases, projected peak hour demand for the sub-area was found to be significantly higher than the observed peak occupancy and to occur on dates and times outside DESMAN's field inventories.
- Factoring in *absorption of existing* spaces that were vacant in April 2024, but likely to be reoccupied and/or reactivated in the next 12-24 months. DESMAN's land use inventory identified over 30 vacant properties in the Downtown, Healthcare, and Residential Sub-Areas representing over 193,000 square feet of space.
- Accounting for *emerging developments* which will introduce new land uses and thus new demand and/or new supply to support those developments over the next decade. Within this last benchmark, DESMAN also accounted for those existing land uses and/or parking facilities that might be displaced by new development. DESMAN identified a total of sixteen possible emerging developments within the study area, of which six are anticipated to have direct impacts on parking supply and demand.

A summary of projections and findings for each sub-area is as follows:

Residential Sub-Area

In contrast to observed occupancy, the model projects peak demand for this area under *Current Conditions* to occur on a Saturday evening in December. Peak demand under the *Absorption* and *Emerging Development* benchmarks is projected to continue to occur on Saturday evenings in December. While total utilization increases 18% across the benchmarks and the number of available spaces declines by 208 spaces, shortfalls are not projected from the aggregate perspective nor when examining supply and demand on-street versus off-street.

Table 5: Residential Sub-Area Projections of Future Parking Need and Adequacy

Type of Parking	Supply	Observed		Existing Peak		Absorption		Emerging Devts	
		Thurs 4/25 @ 10:00 AM		Dec Sat @ 10:00 PM		Dec Sat @ 10:00 PM		Dec Sat @ 10:00 PM	
		Occ	Util	Occ	Util	Occ	Util	Occ	Util
Off-Street	647	108	17%	151	23%	151	23%	239	36%
On-Street	725	184	25%	258	36%	269	37%	269	37%
TOTAL	1,372	292	21%	409	30%	420	31%	508	37%
Available Spaces =		1,080		963		952		872	

The only potential 'problem area' in the sub-area could be along Grand Avenue between St. Charles Street and Baldwin Street where there is a potential for demand to exceed supply in these on-street areas. However, it should be noted that there appears to be a significant number of unused, free on-street



spaces further up and down Grand Avenue as well as along abutting side streets to absorb any spillover occurring if or when this area reaches capacity.

Industrial Sub-Area

Under *Current Conditions*, the model projects a peak hour parking demand for 555 spaces, occurring at 10:00 AM on a June weekday. This is a 90% increase over peak observed occupancy (290 vehicles) at 8:00 AM on Thursday, April 25. There was no vacant space accounted for in this sub-area under the *Absorption* benchmark and limited new development under the *Emerging Development* benchmark. As a result, while peak hour demand is projected to increase by 52 spaces, total utilization does not exceed 58% and appears to be balanced between on- and off-street supply.

Table 6: Industrial Sub-Area Projections of Future Parking Need and Adequacy

Type of Parking	Supply	Observed		Existing Peak		Absorption		Emerging Devts	
		Thurs 4/25 @ 8:00 AM		June Wkdy @ 10:00 AM		June Wkdy @ 10:00 AM		Jun Wkdy @ 10:00 AM	
		Occ	Util	Occ	Util	Occ	Util	Occ	Util
Off-Street	999	279	28%	527	53%	527	53%	579	58%
On-Street	46	11	24%	28	61%	28	61%	28	61%
TOTAL	1,045	290	28%	555	53%	555	53%	607	58%
Available Spaces =		755		490		490		438	

Healthcare Sub-Area

Under *Current Conditions*, peak hour demand is projected to occur at 11:00 AM on June weekday and represents a 10% higher threshold than observed peak occupancy in April 2024. *Absorption* of vacant properties and *Emerging Developments* are expected to increase peak hour demand by 33 additional spaces each, driving total utilization up from 62% observed to 71% projected, but still leaving roughly 828 spaces available at the peak hour.

Table 7: Healthcare Sub-Area Projections of Future Parking Need and Adequacy

Type of Parking	Supply	Observed		Existing Peak		Absorption		Emerging Devts	
		Thurs 4/25 @ 9:00 AM		Nov Wkdy @ 11:00 AM		Nov Wkdy @ 11:00 AM		Nov Wkdy @ 11:00 AM	
		Occ	Util	Occ	Util	Occ	Util	Occ	Util
Off-Street	2,612	1,678	64%	1,822	70%	1,829	70%	1,862	71%
On-Street	221	84	38%	117	53%	143	65%	143	65%
TOTAL	2,833	1,762	62%	1,939	68%	1,972	70%	2,005	71%
Available Spaces =		1,071		894		861		828	

The private parking facilities immediately adjacent to UHS facilities within the sub-area are all projected to reach capacity by the Emerging Developments benchmark and at least one of the remote lots servicing UHS personnel will be nearly full at the peak hour. Despite this, there will still be over 300 spaces available at the peak hour within the total parking supply UHS controls, although many of these spaces will be located in satellite lots located south of the campus core. The supply controlled by SUNY Binghamton will continue to be more than adequate to support peak hour needs.

Peak projected utilization under Emerging Developments for the on-street supply only increases to 65%, but the curbside parking along Main Street, Park Place, Baldwin Street between Main Street and Corliss Avenue, Arch Street, North Broad Street, and Baldwin Street will all be filled to capacity at the peak hour.



Downtown Sub-Area

Comparison of peak observed occupancy to peak demand under *Current Conditions* shows a 77% increase in the number of occupied spaces and would indicate the June weekdays at noon are the busiest hour of the year for this sub-area. *Absorption* of vacant space is projected to push the peak hour to 1:00 PM on a December weekday due to the amount of empty retail space and will increase peak hour demand by an additional 184 spaces. Finally, the *Emerging Developments* for the sub-area are projected to increase peak hour demand by another 11 spaces, resulting in a total projected utilization rate of 51%. Relative to the peak observed occupancy in April 2024, there will be 390 fewer spaces open and available in the next few years.

Table 8: Downtown Sub-Area Projections of Future Parking Need and Adequacy

Type of Parking	Supply	Observed		Existing Peak		Absorption		Emerging Devts	
		Sat 4/27 @ 4:00 PM		June Wkdy @ 12:00 PM		Dec Wkdy @ 1:00 PM		Dec Wkdy @ 1:00 PM	
		Occ	Util	Occ	Util	Occ	Util	Occ	Util
Off-Street	1,059	194	18%	327	31%	495	47%	503	47%
On-Street	188	58	31%	120	64%	136	72%	139	74%
TOTAL	1,247	252	20%	447	36%	631	51%	642	51%
Available Spaces =		995		800		616		605	

Among the publicly-accessible off-street facilities in the area, only the Willow Lot is projected to approach full utilization in the near future; the other Village lots are projected to be around 60% full at the peak hour.

Among the private off-street facilities, the lots for the Vitali Auto Exchange and the dentist offices at 190 Main Street are projected to fill to near capacity, as is the southeastern-most surface lot supporting the Victory Lofts and the main lot for St. James School. Most of the other private parking lots in the area will rarely be more than 50% full in the future.

Among on-street parking areas, DESMAN projects that the sections of North Broad Street, Avenue A, Avenue B, Avenue C, Avenue D, Willow Street, and Main Street between Arch Street and Avenue A will be filled to capacity at the peak hour.

Summary conclusions from this task included the following:

1. There is unlikely to be a sub-area wide parking shortfall in the foreseeable future that would require development of additional capacity via a parking structure. If the Village were to decide to move forward with the creation of a centralized parking structure, it would be to incent new development and/or compensate from an unimagined loss of public parking supply.
2. The high level of utilization across UHS facilities located between Main Street, Corliss Avenue, St. Charles Street, and Broad Street is problematic as it appears to be contributing to overflow onto adjacent public streets, although it could be balanced across the large supply available to the institution. Solutions which encourage UHS to take a more active role in managing their parking system and/or preserve access to on-street supply in the area in a fair and equitable manner should be explored.



3. The high rate of utilization in the Willow Lot relative to the other Village lots is a concern and solutions should be developed to try to better balance supply and demand across the public off-street parking supply.
4. Similarly, having all of Main Street between Arch Street and Avenue A, as well as the abutting streets, filled to capacity creates issues in an area that the Village is investing heavily in to revitalized. Steps should be taken to encourage some of this demand to utilize public off-street supply or on-street supply within the area that is currently underutilized so that a few empty spaces remain available on each block face at peak hour to welcome discretionary and first-time visitors to both existing and new businesses and institutions.

Additional detail on the preceding analysis can be found in the task report included as **Appendix B** to this report.

Site Feasibility Study

While the Existing Conditions and Future Needs analyses did not indicate the need for a parking structure, DESMAN and PAEvery Architects did undertake a study of conceptual sites for structured parking to inform the Village if or when the need arose.

PAEvery Architects noted that the iDistrict Design Standards currently in place would ensure any new parking structure would align with the aesthetics, setbacks, massing, and general culture of the surrounding buildings, resulting in a structure with a less utilitarian appearance than the existing UHS parking structure. Most likely the designs would need to incorporate brick or other façade treatments to mirror the existing streetscape as well as external design features such as openings of a dimension and style comparable to windows on adjacent buildings.

Working with Village leadership, DESMAN identified five potential sites with adequate dimensions to support structured parking. Two of these sites were over existing parking lots owned and managed by the Village; the other three sites were private properties. In the case of the private properties, DESMAN's first criteria were whether the site could support structured parking; the second was whether there was development happening in the area that might warrant some form of public/private venture.

For example, two of the sites are owned by UHS who could potentially decide to convert one or more of their existing surfaces lots into a new land use in the future, necessitating creation of a parking structure to compensate for the lost capacity in the system and the potential increased demand arising from the new land use. Similarly, it is conceivable at some point that the Village might engage with the Goodwill Theater Company to create structured parking behind the theater that would support the activities of the surrounding land uses and may serve as a designated parking facility for downtown employees.

Of the five sites evaluated, the UHS satellite lot at 150 Corliss Avenue offered the most efficient site design, which would translate into the lowest cost per space of the four options. Between the most efficient site design public sites, the municipal surface lot southwest of the George Kortuz Justice Building proposes the greatest efficiency as well as a more centralized location for creating structured parking to support Main Street.

Additional detail on the preceding analysis can be found in the task report included as **Appendix C** to this report.



Operations Assessment

The fourth task executed by DESMAN was a wide-ranging evaluation of how the Village of Johnson City manages public parking. This assessment included:

- a) An overview of municipal best management practices for public parking systems.
- b) A set of recommended guiding principles for the Village of Johnson City to review, debate, revise and adopt. These principles were developed by analyzing feedback from Village of Johnson City officials, leaders, stakeholders, and citizens as well best practices observed in other municipalities. Once adopted, these principles will serve as the philosophical foundation for the formation of parking policy in the future.
- c) A review of communities designated as comparable by DESMAN for use in benchmarking various administrative and operational structures within the public parking system.
- d) A review of existing ordinances associated with parking and recommendations for modification of existing legislation to align with current conditions and/or best practices.
- e) An evaluation of current zoning code as it applies to parking requirements for new development. This included benchmarking of various features within the code, especially those specific to seeking relief from minimum parking requirements, against best practices and comparable communities.
- f) An overview of best practices with regards to rate setting for transient parkers and a comparison of rates charged in the Village of Johnson City relative to comparable communities.
- g) An overview of best practices with regards to rate setting for monthly parkers and a comparison of permit rates charged in the Village of Johnson City relative to comparable communities.
- h) An overview of best practices with regards to constructing parking violation fines and penalties and a comparison of fines and penalties levied in the Village of Johnson City relative to comparable communities.
- i) A review of best practices for parking facility design and maintenance applying CPTED (Crime Prevention Through Environmental Design) principles and an assessment of the Village's off-street parking lots relative to these principles and best practices.

Summary conclusions from this task included the following:

1. Overall, current ordinances as they apply to parking under Chapter 264 of the Village Code appeared to be aligned with industry best practices and comparable to those sections included in the code for the other communities surveyed. DESMAN identified twenty-seven areas where the language in the code could be revised to enhance understanding, align with existing conditions, or clarify intent.
2. DESMAN found the parking minimum requirements included in the Village code were aligned with best practices and requirements in comparable communities. DESMAN noted several features in the code of comparable communities not included in the Village's zoning ordinances, but only recommended changes to zoning as it applied to:



- a. Relief from minimum parking requirements for applicants seeking a reduction under demonstration that the project needs less parking than mandated due to shared use between complimentary land uses.
 - b. Seeking approval to meet minimum parking requirements for a project through the execution of a shared parking agreement between the developer and another property owner.
3. DESMAN noted that the current rates charged to transient parkers in the Village of Johnson City were within the range of acceptable fees across the other communities surveyed, but may not be reflective of the demand for specific parking facilities or areas.
4. DESMAN noted that the current monthly permit fees charged to parkers in the Village of Johnson City were within the range of acceptable rates across the other communities surveyed.
5. DESMAN noted that the current fines charged to parking ordinance violators in the Village of Johnson City were within the range of acceptable penalties across the other communities surveyed.
6. DESMAN identified several items that are in need of attention, regarding the general condition and maintenance of each of the Village's five public parking lots.

Additional detail on the preceding analysis can be found in the task report included as **Appendix D** to this report.

Public Engagement

To initiate the engagement, DESMAN participated in a series of seven focus group meetings that included twenty-five stakeholders representing: *the Village of Johnson City Planning Board; the Village of Johnson City Board of Trustees; Broome County Planning; Binghamton Metropolitan Transportation Study; Sarah Jane Johnson United Methodist Church; St. James Parish; Gabriella's Cakes and Co.; New York Styles; the Reveille; Paulus Development; SUNY Binghamton; United Health Services; Binghamton Hots; the Goodwill Theatre; Village of Johnson City Fire Department; Your Home Public Library; Vitali Auto; Sole City Coffee; the Greenery Spot; Vestal Asphalt; local developers; downtown residents.*

Conversations were wide-ranging over a broad variety of topics, concerns, goals, objectives, and agendas. However, there were several recurring themes brought up by multiple individuals of differing backgrounds including:

- ❖ A general perception that current parking enforcement efforts were inadequate to assure compliance with posted regulations.
- ❖ A desire to see downtown made 'more walkable.'
- ❖ A need to see the Village of Johnson City take a more active role in managing parking.
- ❖ Interest in demand-responsive pricing measures which would vary the cost of parking by how "popular" (congested) a parking area was historically.
- ❖ The consensus agreed that paid parking was needed to limit length of stay and encourage turnover in many areas, but cautioned that parking fees need to remain affordable to the average citizen.



- ❖ A general perception that the Village should endeavor to be clear and proactive in communicating impacts on the public parking system. Many participants noted issues with the roll-out of the new multi-space parking kiosks along Main Street.
- ❖ Concerns that large institutions could overwhelm the public parking system if not communicated and coordinated with.

DESMAN also designed and administered an online survey open to the general public. The survey was posted on the Village's website, promoted, and open for a period of roughly eight weeks and received 83 responses. The ten-question survey identified key trends and attitudes surrounding parking in the Village as well as testing some common best practice initiatives adopted by other communities. The main takeaways from this survey were as follows:

- ✓ 99% of respondents reported driving themselves into downtown by personal vehicle.
- ✓ 45% of respondents indicated they usually parked in a public space, even though the public supply accounts for less than 25% of total supply within the study area.
- ✓ 80% of respondents stated they could find a parking space in three minutes or less.
- ✓ 77% of respondents regularly parked within a two-minute or less walk to their destination.
- ✓ Only 37% of respondents rated parking in downtown three-stars or better.
- ✓ Proximity to destination was the highest rated concern when looking for a parking space among respondents.
- ✓ If the Village needs to raise money to pay for parking improvements, raising parking meter and /or permit rates is the most tolerable option. There was very little support for funding parking improvements through property taxes.

Additional detail on the focus group meetings and survey results can be found in the task report included as **Appendix A** to this report.

DESMAN also facilitated a series of three public workshops on the evenings of October 10th, October 22nd, and November 7th. These workshops were held at the Village of Johnson City Municipal Offices and streamed via Microsoft Teams for individuals wishing to attend virtually. Each workshop was roughly 90 minutes in length and featured a presentation by the consulting team detailing the findings as follows:

- Workshop #1 (10/10/24): Existing Conditions and Future Needs
- Workshop #2 (10/22/24): Expansion Options and Operations Review
- Workshop #3 (11/07/24): Draft Parking Plan

Each workshop had roughly one dozen individuals attending in person from the community. Periods for questions and answers and public comments were included after each presentation. DESMAN did not record any objections, disputes, and rejections of the presented findings or recommendations.



3. PROPOSED PARKING PLAN

The following section presents a ten-step plan, in recommended order of execution, addressing the most pressing challenges identified. Each step is presented as follows:

- A statement of the **challenge** identified during the course of study.
- A **proposal** for addressing this challenge.
- Anticipated **benefits** from adopting the proposal.
- Potential **costs** associated with adopting the proposal.
- Personnel** necessary to execute the proposal.
- DESMAN's estimate of **priority** for execution. This priority will be characterized as "*Immediate*" (within the next 12 months), "*Near-Term*" (within the next 2 years), "*Mid-Term*" (within the next 3-5 years), and "*Long-Term*" (within the next 6-10 years).

Table 9 provides an overview of proposed action steps.

Table 9: Proposed Action Steps in Parking Plan

PROPOSED PHASING	STATEMENT OF CHALLENGE(S)	PROPOSED ACTION	ANTICIPATED BENEFITS	POTENTIAL COSTS	NECESSARY PERSONNEL	PRIORITY
1	Public does not understand the economics of providing public parking	Creation of Parking Fund	Transparency, public education, increased political support	Nominal - no external labor or materials costs anticipated	Village Legal Council and Clerk/Treasurer to develop fund structure, VBoT to approve it	Immediate
2	Village public parking lots need repair, rehabilitation	Create a Parking Lot Improvement Plan	Enhanced security, improved perception, increased utilization	~ \$50,000 initially, \$50,000/year thereafter	Program development via DPW, Planning, and Police Department - execution TBD	Immediate
3	Current wayfinding system it has gaps that may 'lose' some potential users	Invest in Wayfinding Enhancements	Improved perception, increased utilization	~ \$30,000	Assessment via outside contractor and/or DPW and Planning, execution by same	Near-Term
4	Public seeks better communication regarding, public parking impacts	Improve communications through website enhancements	Improved communication, education of options for alternate modes of transportation	Unknown - VJC should solicit a quote from their web developer	VJC website developer	Near-Term
5	No formal structure for bringing together staff and stakeholders on parking	Creation of Parking Working Group	Improved communication, consensus building, improved policy making	Nominal - no external labor or materials costs anticipated	VBoT to appoint Village staff and representative stakeholders	Mid-Term
6	Lack of unifying mission or vision for the public parking system	Develop and promote a guiding Mission Statement	Improved communication, consensus building, policy making	~ \$10,000 - \$50,000 if VJC contracts an outside agency to administer the process	VBoT to authorize process, Planning to develop scope	Mid-Term
7	Parking demand from UHS may overflow into abutting neighborhoods	Develop and execute a pilot Residential Parking Permit (RPP) program	Define the source and scale of intrusion, test support for RPP programs	~ \$100,000 if VJC contracts an outside agency to run the pilot	Participation from Planning and Police Department, oversight by VBoT	Mid-Term
8	Public believes parking enforcement efforts are inadequate	Acquire mobile Automated License Plate Recognition (ALPR) technology	ALPR allows efficient, accurate patrolling increasing compliance and revenues	~\$75,000-\$125,000 initially, ~\$1,200-\$1,500 annually in license fees	VBoT must develop supporting legislation, Police Department will handle SOPs	Mid-Term
9	Imbalances in parking utilization along Main Street and in the Willow Lot	Develop and execute a pilot to test alternate pricing scheme	Increased availability in crowded facilities, increase utilization in underused facilities, increased revenue	~ \$75,000 if VJC contracts an outside agency to run the pilot	Participation from Planning and Police Department, oversight by VBoT	Mid-Term
10	Current zoning code authorizes Shared Use, does not actively facilitate it	Revise zoning language to provide more structure	Improved utilization of private parking, increased development and downtown activity	Nominal - no external labor or materials costs anticipated	Planning Department to develop language, VBoT to approve it	Mid-Term



Establish A Parking Fund

Challenge: Feedback from stakeholder meetings and survey results indicated confusion as to where the revenues generated by meters, permit sales, and parking violation fines and penalties went within the Village's operating budget. Similarly, constituents did not have an understanding of the costs associated with providing parking services. In some cases, the lack of clarity devolved into speculation that parking fees and fines were a profit center for the Village.

Proposal: Most citizens do not have an intuitive understanding of the costs associated with the administration, maintenance, and operation of a public parking system. Often, constituents only are aware of the fees or fines they incur associated with public parking and, as such, are prone to erroneous conclusions with regards to where those funds are directed or what expenses they may be offsetting.

Creating a dedicated 'parking fund' to consolidate gross revenues from meter collections, permit sales, parking fines and penalties as well expenses associated with parking facility operations and maintenance, parking system administration, and parking enforcement and adjudication (inclusive of contracted services, labor, and materials) will educate the public on how much the Village is making on parking and how much it costs to provide the same.

This fund can be a simple accounting mechanism or a legal entity, depending on state and local laws as well as the objectives of the municipality. DESMAN envisions the establishment of a classic *enterprise fund* which is commonly defined as "a separate accounting and financial mechanism that tracks the costs and revenues of a public service that's operated like a private business." In many cases, municipalities adopt this structure in anticipation that the fees generated by the enterprise will cover the costs to provide the service, but this is not an absolute requirement. In municipalities like the Village of Johnson City, these funds often demonstrate the necessity to subsidize items like major repair and replacement projects or debt service on new facilities.

Benefit(s): The benefits of this approach depend on the requirements associated with the fund. If the fund established mandates positive net income be established and maintained within a designated time frame, this structure can be useful in establishing operating budgets, capital investment plans, and setting fees and fines. If the fund is a less rigid accounting structure, it can be used to demonstrate the fiscal health of the public parking system when discussing period rate and fine adjustments, investments in new technologies or facilities, or changes in policy and/or operations. The transparency and utility of the fund places citizens on equal footing with Village leaders when discussing changes to the system and can be used to dispel misstatements regarding why the municipality is charging for parking and where those funds are being invested.

Cost(s): This approach does not require any special equipment or software and should not require any new personnel. Some additional labor costs may be incurred depending on how the fund is structured and which Village staff members are responsible for collecting, organizing, and posting various revenue and/or expense line items, but that is subject to individual workload and terms of employment.

Personnel: A fund must be established through local legislation developed, reviewed, and adopted by the Village Trustees in collaboration with the offices of the Clerk/Treasurer. Once adopted, it is common that the Clerk/Treasurer works in collaboration with other departments to compile collected revenues and expended costs periodically for inclusion on the fund's operating statement.



Priority: DESMAN has ranked this proposal first and designed it an “Immediate” priority because it is relatively low cost, requires limited effort, and would return substantial benefits to the Village and its citizens as an educational and decision-making tool. More critically, several of the later proposals within this plan will have revenue and/or cost impacts such as changing parking fees in select locations, establishing new parking programs, and investing in technology which may result in the issue of a higher volume of citations. With this fund in place, the Village is well positioned to inform the public of the positive and/or negative consequences of the adoption of these proposals and the public can enter into discussions with Village leaders with a clear understanding of the fiscal state of the public parking system.

Parking Lot Improvement Plan

Challenge: A review of the condition of the existing Village parking lots with a focus on user perception and safety indicates that each facility could benefit from investments in improving the lot surface, stall striping, lighting, and landscaping. In addition, the public lots are often the first and last impression first-time visitors have of the Village and should be maintained and operated in a manner which projects a positive, welcoming environment.

Proposal: DESMAN would recommend development and execution of an improvement program which would include the following components:

- a) An initial lighting audit conducted by a licensed illumination engineer to evaluate the adequacy of lighting within each lot, along their perimeters, and across the course of common pedestrian pathways between each lot and popular destinations. This initial audit should occur within the next 12 months and will result in clear recommendations for improving lighting, safety, and perception in each lot. Once these improvements are made, an audit to check lighting levels should be conducted every 3-5 years to assure adequate illumination is maintained.
- b) A basic cleaning and janitorial maintenance program should be developed and executed so that each lot is subject to inspection and care on a weekly basis. This program would include, at minimum, the collection and disposal of trash and debris, removal of graffiti if present, reporting and documentation of any safety issues or malfunctions of equipment within each facility, inspection of signage and lighting elements, and other tasks. Periodic washing of signage and replacement of lighting elements may also be part of this program.
- c) Twice per year, preferably in late April and again in mid-September, the landscaping around each lot should be inspected, pruned, and otherwise maintained to preserve both aesthetic appeal as well as clear sightline and perimeter definition around each lot. This is an immediate need in the Isabelle Lot where overgrowth along the lot’s perimeter has begun to impact the usable capacity of the facility.
- d) Twice per year, preferably in late March and early October, the Village should have each lot surface cleaned with an industrial sweeper and power washed to remove salt, oil, and other contaminants from the lot’s surface. This will improve the lot’s appearance, extend its lifespan, and cut down on major repair and replacement projects over the life of the facility.
- e) Every fourth year, each public lot should be resurfaced. This may mean complete abrasion of the existing asphalt and replacement with fresh materials or just resealing the surface. This is an immediate need in the Isabelle Lot where spalling and potholes are tripping hazards and a near-term need in the Municipal Lot south of the Justice Building where some spalling and cracking was



observed. Resurfacing can be done on a rotating basis so that the Village is not taking more than one or two facilities offline at any time and spreading the expense out over different fiscal years.

- f) Every second year, each public lot should have the stall markings and traffic markings on its surface refreshed (“restriped”). This has both aesthetic and practical benefits as a well-maintained facility is commonly perceived as safe and welcoming and clear striping leads to more efficient parking by drivers. This may or may not be done in tandem with resurfacing the facility.

Benefit(s): Well-maintained parking facilities are perceived as safer and more welcoming, reduce the Village’s exposure to litigation arising from a personal injury or property loss occurring within the facility, and extend the facility’s lifespan, result in lower maintenance costs in the long term. In DESMAN’s estimation, these lots will be crucial to supporting planned investment and development along Main Street and the downtown core and assuring they are ‘user friendly’ will buttress that support.

Cost(s): Costs for each task will vary according to the provider, scope of work, procurement methods, and prevailing market conditions. DESMAN would recommend budgeting \$35,000 for the initial lighting audit. A strong weekly maintenance program will likely cost the Village \$150-\$200 per space annually in labor and materials if subcontracted. Landscaping services are estimated at \$2,500 per facility each year if subcontracted. Sweeping and power washing typically costs \$40 per space each year. Resealing currently costs \$1.00-\$1.50 per square foot; resurfacing an asphalt lot costs \$2.25-\$4.00 per square foot; resurfacing a concrete lot costs \$3.00-\$7.00 per square foot. Restriping an existing parking lot costs \$10.00-\$12.00 per stall.

Personnel: The initial program, including schedules and Standard Operating Procedures would be developed in collaboration with the Department of Public Works, the Planning Department, and the Police Department. If the programs are being executed by Village staff, DESMAN assumes the majority of labor would come from the Department of Public Works. If the Village elects to subcontract services to private vendors, procurement would follow traditional procedures and management of the awarded vendors would typically fall under the Department of Public Works.

Priority: This should be an Immediate Priority to support the investments and development in downtown.

Wayfinding Enhancements

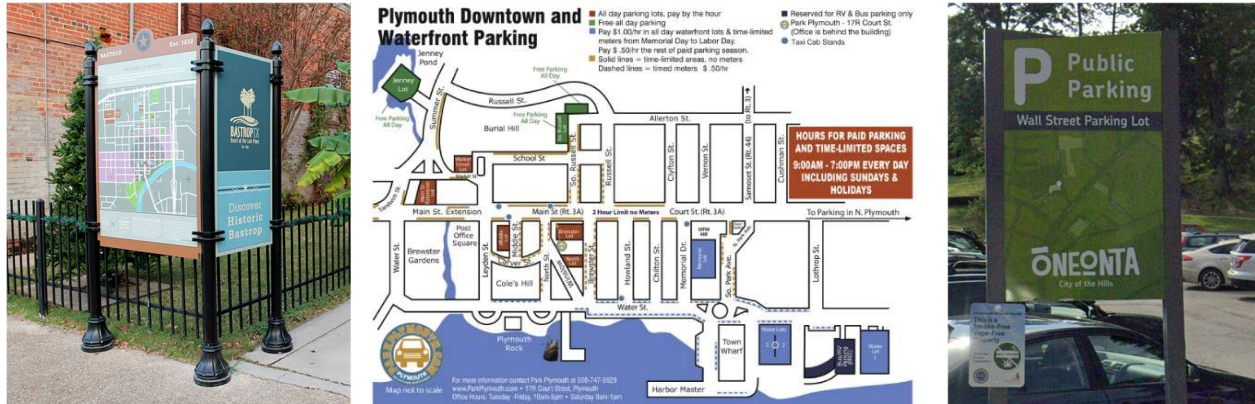
Challenge: Wayfinding is the system of signage that directs drivers to public parking facilities and pedestrians from those parking facilities to their destination and back again. Wayfinding is especially critical for first-time or infrequent visitors to the area. Review of the Village’s wayfinding signage system connecting drivers from arterial roadways to public parking facilities identified the following issues:

- 1) The trailblazing signage that directs drivers in downtown towards the public parking lots is often mounted in locations where drivers cannot see it with enough advanced notice to change lanes in order to follow the signs to public parking lots.
- 2) The identification signage that alerts approaching drivers to the location and name of each of the Village’s public lots is hard to read during daylight hours because the font is too small and increasingly hard to read after dark because it is not directly illuminated.
- 3) DESMAN found the informational signage detailing the rules and regulations pertaining to each lot to be appropriate and effective, but noted the lack of any orientation signage to assist



pedestrians with identifying where they are parked relative to popular destinations and how to get there and back on foot.

Figure 3: Samples of Orientation Signage



Proposal: DESMAN recommends the following actions to enhance the existing wayfinding system:

- Perform a signage audit with drivers who are unfamiliar with the area and have been instructed to only use the wayfinding system to navigate from major arterials into downtown and then to each public parking lot. Identify and note each location and/or decision point where trailblazing signage is missing or improperly placed and develop a plan for correcting these issues.
- Equip both trailblazing and identification signs with dedicated external lighting to ensure they are visible after dark.
- Test the size of the font on trailblazing and identification signs to confirm they can easily read from a distance of 40' or more by a driver or passenger perspective. As needed increase the font to improve legibility and comprehension.
- Develop orientation signs for installation in each lot which show a map of the area including the lot in which they are parked, nearby roadways, and popular destinations. Example of this signage are included on the prior page as **Figure 3**.

Benefit(s): Strengthening the wayfinding system will assist in making new or infrequent visitors to downtown such as shoppers, diners, tourists, event attendees, and visitors to offices and institutions more comfortable downtown. In addition, a strong wayfinding signage can incent drivers to park in off-street facilities rather than curbside, reducing the congestion along Main Street and its abutting roadways. Readable and well-lit wayfinding can also reduce the risk of vehicular collisions by providing drivers with adequate notice and distance to make necessary turns. Finally, an effective and attractive wayfinding system promotes a sense of order and safety across an area, encouraging both first-time and repeat visits.

Cost(s): Costs to perform the initial audit will vary depending on whether the Village performs this with existing staff or subcontracts the work to a vendor; DESMAN recommends setting aside up to \$10,000 for this study, which should be more than adequate. DESMAN assumed that relocation of signage and installation of lighting elements would be performed by Department of Public Works personnel, avoiding added labor costs. The cost to replace lettering and acquire signage lighting varies widely due to multiple

factors; DESMAN found quotes for relettering were \$25-\$150/sign and lighting elements ran \$20-\$200/sign. Design, development and installation of orientation signage commonly costs \$5,000-\$20,000 per sign when contracted to an outside party, with wide variances based on the scope of contracted services, design details, materials, and local labor rates.

Personnel: DESMAN believes that initial assessment, if not contracted to an outside agency, would be a collaborative effort between the Planning Department and the Department of Public Works, as would selection of lettering and supplemental lighting. Design of the orientation signs would most likely fall under the Planning Department and fabrication and installation of the signs would be the Department of Public Works purview unless the Village decided to contract this work to a specialist.

Priority: This is a Near-Term priority as improvements to the wayfinding system may be performed in concert with other infrastructure and improvement efforts in the area with the common goal of supporting increased activity and commerce in downtown Johnson City.

Communication Improvements

Challenge: Comments were made in both the initial stakeholder meetings as well as the online survey expressing dissatisfaction with the Village's efforts to inform and educate citizens about the public parking system. While many of these comments were specific to the recent replacement of single-head mechanical meters with multi-space 'smart' meters along Main Street, some individuals cited a desire to access a centralized source of information regarding parking and transportation options servicing downtown.

Proposal: The Village Police Department has updated their website to provide parking information for citizens and visitors. To access this information, individuals can go to <https://jcnypd.org/parking>. On that webpage, an individual can find information and links about the public parking system, parking enforcement, parking violations payments and/or appeals, parking permits, and winter parking rules. This page provides a solid foundation for creating a centralized communication and education resource for the parking system, but could be improved upon as follows:

- a) On the main 'landing page' of the Village's municipal website, include a link under "Resources" labelled "Parking" which will connect the user to the existing page located under the Police Department's site. The website does not have a "Search" function currently, so this link would help those seeking information about parking to be able to connect with the current resource.
- b) Include a feature on the "Parking" webpage which would allow user to download the included parking map in PDF format, if they need a hard copy to assist them during their visit.
- c) Add information regarding the new Flowbird meters and payment application such as how to use the meters and/or application. This could be included as part of a "FAQ" page specific to parking.
- d) Create a link between this webpage and the Planning Department webpage where updates on this study are currently posted.
- e) Create a link between this webpage and the portion of the Johnson City Code of Ordinances (ecode360.com/JO1382) specific to parking.



- f) Consider incorporating links on the Parking webpage to peer agencies and/or related services. This may include, but is not limited to: *Broome County Transit*¹; *Binghamton University Transportation and Parking Services*; *Binghamton Metropolitan Transportation Study*; *the webpage on the UHS website addressing visitor parking options*; *RediVan*; *Uber*; *local taxi services*; *local rental car services*; *Americancycle.com*²; *Bikemap*³; and the *Greater Binghamton Chamber of Commerce*.

Benefit(s): By adding these features, the Village creates an easy-to-find, centralized information resource that allows residents and visitors to learn about and evaluate their parking and transportation options, offering a high level of service. Additionally, DESMAN's professional experience has been that the more aware a population is of the full scale of their travel options, the greater adoption of sustainable practices within the community over time.

Cost(s): Website design is outside DESMAN's area of expertise, so we are unable to provide a cost estimate for this proposal.

Personnel: DESMAN assumes the parking website's architect can add these features.

Priority: This is a Near-Term priority so that the resource is available to support the continued investment in downtown and anticipated increase in commerce and visitors.

Create A Parking Working Group

Challenge: Parking is a public good that requires the consent of the public to operate effectively. Currently, there does not appear to be any mechanism regularly to bring Village staff, institutional stakeholders, and invested business owners and residents.

Proposal: DESMAN recommends creation of a Parking Working Group to bring together Village staff members with parking system stakeholders to discuss and address current and future challenges, review and/or develop recommended policy language, and coordinate the use of the public parking system. DESMAN suggests that the group be comprised of a representative from each of the following:

- Village of Johnson City Police Department involved in parking enforcement.
- Village of Johnson City Planning Department or Planning Board who is familiar with emerging developments and growth initiatives.
- United Health Services.
- SUNY Binghamton.
- Downtown retailer.
- Downtown restaurateur.
- Downtown resident.

¹ Especially the webpage detailing Transit Route 17 which services Johnson City.

² A nationally recognized retailer of bicycles and bicycle parts with headquarters on Floral Avenue

³ Web service which provides subscribers with detailed maps and directions for bicycling between locations across the United States



- Broome County Transit.
- Firehouse Stage/Goodwill Theatre.
- Binghamton Municipal Transportation Study.

The Village Trustees would appoint a staff member to chair this group initially as well as representatives of the retail, restaurant, and resident perspective; appointment of officers and/or new members in the future will be governed by the bylaws developed by this group and approved by the Village Board of Trustees. Meetings will occur on a monthly or bi-monthly basis as needed and the agenda for this group will be developed by its “Parking Leader”.

Benefit(s): Where other communities have adopted such an organization, communication between the municipality and its constituents has improved, decision- and policy-making has been expedited, collaboration between private property owners and public interests has increased, and public sentiment regarding the public parking system has risen. Municipalities report progress towards immediate and strategic goals has been more efficient and consistent due to the work of these groups than was experienced prior to their formation.

Cost(s): Any costs associated with this proposal should be nominal as it is anticipated that participation will be voluntary.

Personnel: It is anticipated that the Village Trustees will approve initial members, then the Parking Leader organizes and provides group oversight.

Priority: This is a Mid-Term priority which can be implemented in the Near-Term due to its relative low cost and limited design requirements.

Define the Mission for the Public Parking System

Challenge: The ***purpose*** of a public parking system is to provide parking services to support constituents. The ***mission*** of the system should indicate the municipality’s primary goals and/or a hierarchy of objectives guiding policy making and operations. It does not appear that the Village of Johnson City has established the mission and/or objectives for providing public parking to date. A lack of a common mission or vision can lead to confusion and discontent among both the staff members tasked with providing the services and the constituents dependent upon them.

Proposal: DESMAN recommends the Village of Johnson City define the primary mission for its public parking and establish an accepted set of priorities to guide policy making and operations. Every municipality would like to provide abundant parking that costs its users little or nothing, requires no subsidy from taxpayers to build and operate, is of the highest quality, fosters commerce and investment in the community, and aligns with the municipality’s commitments to sustainability. Creating and providing public parking is an expensive enterprise that must be borne by someone; however, quality comes at a premium, public funds spent on providing parking to support commerce and development are public funds not being spent on other infrastructure and programs that also drive commerce and investment. Low- or no-cost parking actually encourages use of single-occupant vehicles over more sustainable modes of travel.



Benefit(s): Development and promotion of a Mission Statement clarifies for the community as well as prospective citizens and investors why the municipality is providing public parking and what its leading priorities are for the parking system. A universal benefit of having a Mission Statement is that creates a consensus of values and objectives for the parking system across multiple and varied constituencies. It also provides a clear vision for the parking system which aids in policy development, programming, budgeting, and communications,

Additional benefits depend on the defined Mission for the system. For example, if the highest priority for the parking system is to reduce parking as a barrier to new development, the community can expect to grow steadily in the future and may have a competitive advantage over surrounding communities that require the developer provide the bulk of needed parking. A municipality which puts a priority on operating parking as revenue-neutral enterprise will have a public parking system that pays for itself. A community that is focused on a parking system that operates in cash positive fashion may be in the position to subsidize other municipal services, reduce taxpayer burden, or invest those funds into transportation and mobility infrastructure to reduce carbon footprint.

Cost(s): If the Village of Johnson City hires a professional planning, public relations, and/or management consulting firm to lead the process of developing a Mission Statement, the engagement will cost between \$10,000 and \$50,000 depending on the scope of work. If the municipality does much of the public outreach and engagement with their own staff, direct costs can be reduced significantly, but potentially at the expense of advancing other community initiatives during the process.

Personnel: The Village Board of Trustees will need to authorize the initiative and approve the development process. The Planning Department may be tasked with developing the scope of work needed to create a Mission Statement, although this work has been conveyed to other staff or even special committees in other villages, towns, and cities. Once the process is designed and executed, it is then led by a professional consultant, in which Village staff will need to participate in the visioning and definition phases of the process to ensure their perspective is represented. The final Mission Statement may require approval by the Village Board of Trustees before it can be formally adopted.

Priority: This is a Mid-Term priority. While it contributes to the evolution of the public parking system, it is not critical to its day-to-day operations nor does it appear to be a pressing issue within the community.

Pilot Residential Parking Permit Program

Challenge: Throughout this study, survey participants, stakeholders, and public workshop participants all voiced concerns that patients, visitors, and employees associated with United Health Services were spilling out of the private parking facilities provided for their use and onto public streets in the residential neighborhoods abutting the campus. Occupancy counts conducted along St. Charles Street, Park Place, Hudson Street, and Corliss Avenue in April 2024 did indicate high levels of utilization in these areas during business hours.

Proposal: DESMAN recommends that the Village design and execute a Residential Parking Permit pilot in the neighborhood to the west of the UHS campus. In broad terms, DESMAN would recommend the Village:

- a) Define the pilot area as bounded by Hudson Street to the east, Allen Street to the west, Main Street to the north, and Corliss Avenue to the south.



- b) The objective of this pilot will be to measure the number of non-resident vehicles parking in this area during standard business hours to determine if migration is occurring in this area.
- c) The goals of this pilot will be to reduce occupancy during business hours along the streets within the pilot area to below 80% at all times.
- d) The pilot term will be six months.
- e) Prior to the pilot, residents living within the pilot area will register their vehicles with the Village and receive a credential identifying the vehicle as belonging to a resident.
- f) Each residence will also be given one visitor permit to be displayed on the vehicle when parked curbside within the pilot area.
- g) Any vehicle with a valid permit will be exempted from ticketing during the pilot term.
- h) Prior to execution of the pilot an extensive public outreach process will be executed informing the community about the terms, regulations, and goals of the pilot.
- i) The pilot area will be temporarily designed as a Residential Parking Permit zone where any individual without a permit parking curbside may do so for not more than two consecutive hours between 8:00 AM and 6:00 PM, Monday through Friday.
- j) Vehicles found parked in this zone without a permit in excess of the maximum time limit will be issued a special citation with an associated fine of \$20.00 plus all escalations currently listed in the Village ordinances.
- k) Violators who present proof of employment and/or patronage of UHS facilities when ticketed may receive a possible reduction in fines. Violators without proof of UHS employment and/or patronage will not be able to access the discount. All tickets will be collected and logged by category on a daily basis during the term of the pilot.
- l) At least one week prior to the pilot, parking occupancy counts within the permit zone will be conducted hourly between 9:00 AM and 5:00 PM each weekday to establish a baseline and identify days and times of peak utilization. This should not be announced and should be executed discretely to prevent intentional corruption of the data.
- m) During the course of the pilot, periodic parking occupancy counts will be conducted at the times and dates identified as peak or near-peak by the baseline data each week.
- n) Ticket and occupancy data will be analyzed and documented in a white paper to be reviewed and ready for public distribution within four weeks of the conclusion of the pilot.
- o) Within four weeks of the conclusion of the pilot, a public hearing presenting data, analysis, and conclusions from the pilot will be conducted. This hearing should include the Village Board of Trustees.
- p) Based on the outcomes, the Village analyze data and feedback from the pilot to determine: 1) The degree of migration into the neighborhood from UHS; 2) The degree of migration into the neighborhood by vehicles not associated with UHS; 3) Whether the permit program successfully reduced curbside occupancy within the pilot zone; 4) If the residents impacted by the pilot would like to continue the program on a permanent basis; and 5) If the program should be expanded into other areas outside the pilot zone.

Benefit(s): At a minimum, the pilot will definitively determine if UHS vehicles are migrating into the area and to what degree. If the migration is occurring, the data will provide the Village and UHS with key information to facilitate addressing the issue collaboratively. If the migration is not coming from UHS, the pilot will indicate this and potentially offer insight into the source of the outside demand. If the pilot



achieves its goals, residents will have experienced decreased congestion in the streets in front of their homes. And if the pilot is popular, the Village will have a program which can be expanded as needed to address issues elsewhere in the community.

Cost(s): If contracted to a private firm for program design, development, execution, and public engagement, the pilot could cost up to \$75,000 plus additional labor needed to provide parking enforcement and violations processing by Village staff. DESMAN would recommend budgeting at least \$100,000 in total.

Personnel: If the pilot is contracted to a private agency for design, development, execution, and public engagement, participation by staff from the Planning and Police Department is assumed, with Village Board of Trustees oversight.

Priority: As UHS is currently working to address their parking challenges through internal processes, DESMAN has deemed this a Mid-Term priority to allow time for these initiatives to prove out.

Parking Enforcement Recommendation

Challenge: Feedback from stakeholders and the survey indicated a common concern that current parking enforcement efforts are inadequate. Discussions with Police Department staff suggest they may be understaffed. An analysis conducted by DESMAN, based on time and movement studies and the most efficient travel path to cover the enforcement area indicates that at least sixty hours of labor are required to just patrol public parking facilities and streets in alignment with the current ordinances in place, as illustrated in **Table 9**. This does not include time necessary to complete associated administrative duties, testify at appeals, and other duties.

Table 9: Parking Enforcement Labor Estimate

Enforcement Requirement	Length of Circuit ¹	Average Rate ²	Hours/ Circuit ³	Circuits/ Day ⁴	Days/ Week ⁴	Hours/ Week
Main Street (2 Hr Limit/Meter)	4.500'	3.00 ft/sec	0.50	5.0	6.0	15.00
Village Lots (Meter/Permit)	1.35 miles	9 mph	0.15	4.0	6.0	3.60
Downtown Streets (6 Hr Limit/Meter)	2.40 miles	6 mph	0.40	4.0	5.0	8.00
Healthcare Streets (6 Hr Limit/Meter)	2.25 miles	6 mph	0.38	4.0	5.0	7.50
Other Public Streets (Time Limit)	40.00 miles	15 mph	2.67	2.0	5.0	26.67
Total Hours/Week						60.77

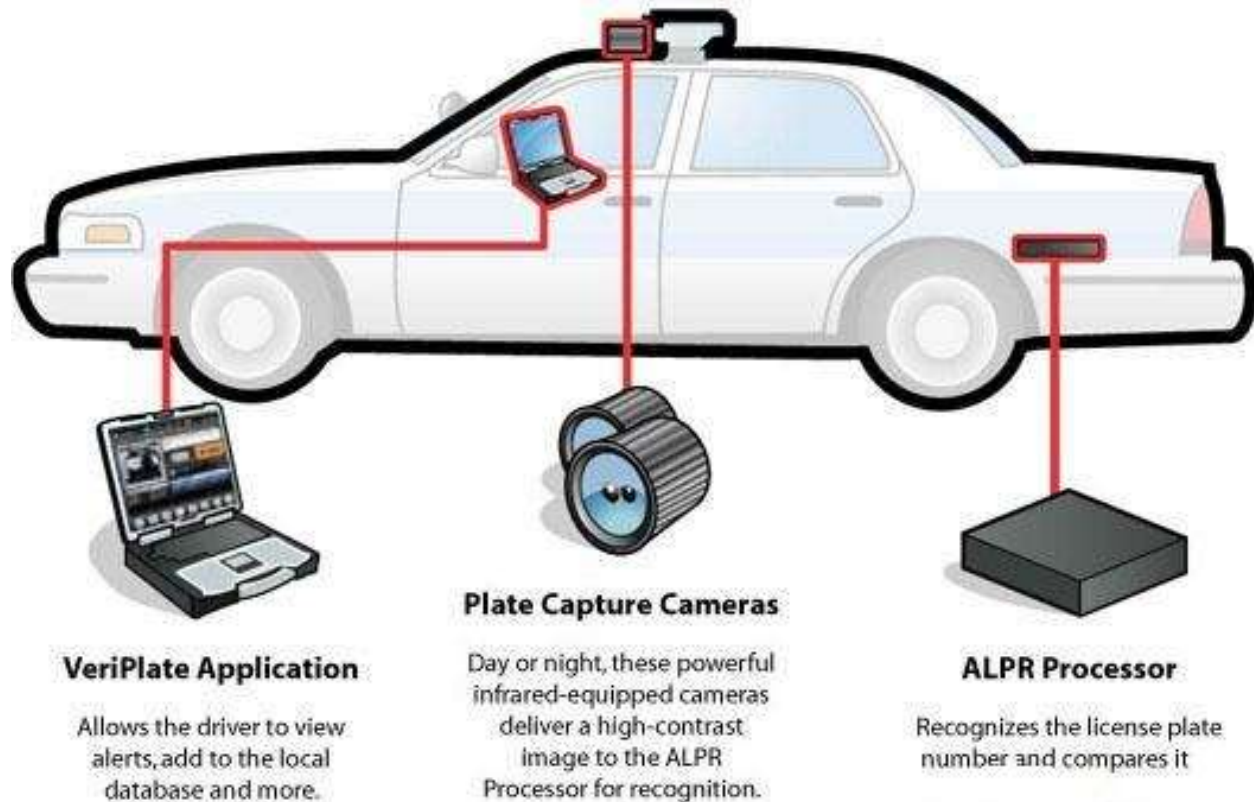
Notes:

1. Estimated in linear feet (for walking routes) or miles (for driving routes) based on the most efficient travel path
2. Estimate in average ft/sec when walking or miles/hour when driving, based on average travel speed
3. Time needed to complete a single circuit
4. Number of circuits per day and number of days per week based on current policies and hours of enforcement.

Proposal: DESMAN recommends the Village purchase an Automated License Plate Recognition (ALPR) system to supplement enforcement efforts. ALPR technology allows an individual to cover a patrol area in half to one-third of the time with greater accuracy. A vehicle mounted ALPR system captures license plate data from parked vehicles as the patrol vehicle, digitizes the plate data, and checks it against databases of paid transients, valid permit holders, and parking scofflaws, signaling the officer and retaining the data only when it detects a vehicle parked in violation of ordinances or with outstanding unpaid tickets.



Figure 4: Example of a Vehicle-Mounted ALPR System



The system can also be programmed to capture license plate data and pair it with time, date, and location (GIS) data to create a record of what vehicles were parked in a particular area at a particular time. This provides a temporary database that can be checked against at a later time to see if the vehicles parked have exceeded time limits. As with the other functions, the system only alerts and retains vehicle data when it has determined a violation has occurred; otherwise, the data regarding where vehicles were parked and when legally is purged from the system.

Benefit(s): Investment in ALPR technology will allow for more effective enforcement of existing ordinances without adding staffing. Many municipalities report that the cost to acquire, install, and operate such a system is offset within 12-24 months after purchase relative to the cost to hire additional personnel to cover the same area. Purchasers also often report increased violation fines revenues in the first few months of operation and declining appeal rates. After the initial implementation, most users report permanent reductions in parking violation volumes due to increases in compliance with regulations. This elevated compliance can also translate into increased availability in areas that were formerly over utilized.

Cost(s): Depending on the vendor, ALPR units can cost between \$75,000 and \$125,000 to purchase and install, not inclusive of the cost of the vehicle bearing the unit. Thereafter, licensing and maintenance fees vary from \$1,200 to \$5,000 annually.

Personnel: The Village Trustees will need to develop and implement legislation authorizing the use of ALPR technology for parking enforcement and the Police Department will need to create operating procedures and policies. **Figure 5** below shows two resources specific to New York State that can facilitate this.

Figure 5: New York State Resources for Establishing ALRP Policy and Operating Standards



Priority: Due to the cost of this proposal and the work required to develop policies, procedures, bid specifications, select a vendor, and train staff to use the system, we have given this proposal a Mid-Term priority, although the Village could elect to move forward sooner.

Parking Pricing Pilot

Challenge: Within the Existing Conditions analysis, DESMAN noted the high rate of utilization along Main Street and its cross streets between Arch Street and Avenue A. This rate is projected until these streets are parked to full capacity under peak hour conditions in the future. Similarly, DESMAN noted the significant difference in utilization between the Willow Lot and the other public lots managed by the Village. These conditions were also cited multiple times during stakeholder interviews and survey responses.

Within the parking industry, the general assumption holds that curbsides parked at 85% of capacity or above and off-street facilities parked to 90% capacity or higher are perceived as full, even when a few open spaces remain. If the Village does not take action, these areas could, due to over utilization, inhibit commerce and patronage of surrounding businesses.



Proposal: DESMAN proposes the Village test an alternate pricing scheme to see if it can rebalance parking supply and demand in the area. DESMAN would recommend the Village test this in a structured pilot before moving to permanent adoption. In broad terms, DESMAN would recommend the Village:

- a) Define the pilot area would be bounded roughly by Arch Street to the west, Jennison Avenue and Avenue A to the east, the railroad tracks to the north, and Corliss Avenue to south.
- b) The objective of this pilot will be to determine if an alternate pricing scheme can create better balance between public supply and demand within the pilot area.
- c) The goals of this pilot will be to reduce occupancy along Main Street, Arch Street, Broad Street, Willow Street, Jennison Avenue, Avenue A, Avenue B, Avenue C, and Avenue D so it never exceeds 85% of capacity along a given block face during hours of enforcement.
- d) The pilot term will be six months.
- e) During the term of the pilot, the rate to park along Main Street will be increased to \$0.75/hour while retaining the two-hour time limit. During this term, the Village will also test a 'first 15 minutes free' policy along Main Street.
- f) Meter rates at other on-street areas will be maintained at \$0.50/hour with a maximum six-hour length of stay.
- g) Transient parking rates in the Willow Lot will be increased to \$0.75/hour and parking permit rates will be increased to \$50.00/month.
- h) Transient parking rates in the other Village lots will be reduced to \$0.25/hour and permit rates will be reduced to \$30.00/month.
- i) Prior to execution of the pilot an extensive public outreach process will be executed informing the community about the terms, regulations, and goals of the pilot.
- j) For a period of at least one month prior to execution of the pilot, parking violation data within the pilot zone will be collected and recorded to establish a baseline.
- k) At least one week prior to the pilot, parking occupancy counts within the permit zone will be conducted hourly between 10:00 AM and 8:00 PM, Monday through Saturday to establish a baseline and identify days and times of peak utilization. This should not be announced and should be executed discretely to prevent intentional corruption of the data.
- l) During the course of the pilot, periodic parking occupancy counts will be conducted at the times and dates identified as peak or near-peak by the baseline data weekly.
- m) Parking violation data will be compiled and recorded each month during the pilot and compared to baseline data to identify any changes in ticket issuance or type of offense.
- n) Ticket and occupancy data will be analyzed and documented in a white paper to be reviewed and ready for public distribution within four weeks of the conclusion of the pilot.
- o) Within six weeks of the conclusion of the pilot, a public hearing presenting data, analysis, and conclusions from the pilot will be conducted. This hearing should include the Village Board of Trustees.
- p) The Village will analyze data and feedback from the pilot to determine if the alternate pricing scheme influenced occupancy rates enough to achieve the pilot goals and if it should be adopted as permanent.



Benefit(s): The pilot will allow the community to test demand-responsive pricing strategies before committing to their adoption. If the pilot is successful, it will create needed parking availability along Main Street and in the Willow Lot just as many of the improvements planned for the area are concluding and activity in the area is anticipated to increase.

Cost(s): If contracted to a private firm for program design, development, execution, and public engagement, the pilot could cost up to \$50,000 plus additional labor needed to provide parking enforcement and violation processing by Village staff. DESMAN would recommend budgeting at least \$75,000 in total.

Personnel: If the pilot is contracted to a private agency for design, development, execution, and public engagement, participation by staff from the Planning and Police Department is assumed, with Village Board of Trustees oversight.

Priority: DESMAN has designated this proposal as a Mid-Term priority.

Proposed Zoning Amendments

Challenge: During the Existing Conditions analysis, DESMAN noted that roughly 70% of supply within the study area was privately-owned, but much of it was rarely utilized over 50% of capacity, leaving thousands of parking spaces unused at peak periods. During the Operations Assessment, DESMAN also noted that while the existing zoning code authorized the use of shared parking strategies to seek relief from minimum parking requirements, it did not provide any detail or clarity on how the strategies could be executed successfully.

Proposal: DESMAN proposes the Village expand their zoning language to provide greater detail, structure, and clarity on how an applicant can see relief from parking requirements by using shared parking. As noted in the Operations Assessment, current language within the zoning code for Saratoga Springs provides a great model for how a shared parking study could be executed to demonstrate reduced parking needs within a new project. This language is included as **Figure 6** on the next page.

Similarly, the task report also highlights the zoning code and forms used by the City of San Diego to promote shared parking between existing land uses and projects. This allows developers to meet parking requirements without building new parking spaces. The agreement form used by the City of San Diego is included as **Figure 7**.

Benefits: Adoption of this language could help increase utilization of underused private parking facilities, reduce barriers to new development, lower development costs, and improve both public perception of downtown and security by bringing more activity into the area

Cost(s): Costs to developing this language are related to staff time and legal review.

Personnel: It is thought the Village Planning Department would lead the effort to craft policy language to be reviewed and adopted by the Village Board of Trustees.

Priority: DESMAN characterizes this as a Mid- to Long-Term priority as this language will be most needed when building density hits a critical mass and infill development begins increasing in frequency.



Figure 6: Saratoga Springs Shared Parking Zoning Ordinance Language

B. Shared Parking Permission

Off-street parking spaces for separate uses may be provided collectively at the applicant's option at a reduced amount of the total number of spaces provided it meets the calculation of Table 10-D: Shared Parking Calculation. Adjacent sites may use the shared parking option but must provide the City with a copy of the agreement between the property owners, and full site access between sites must be granted 24 hours a day.

1. The required number of spaces for each use is calculated according Table 10-C.
2. The required number of spaces for each use is then applied to the percentages for each timeframe, according to the appropriate land use category, in Table 10-D to determine the number of required spaces. This is done for each timeframe category.
3. The numbers are summed for all uses within each timeframe and the highest sum total in a timeframe is the required number of spaces.

Table 10-D: Shared Parking Calculation						
Land Use Category	Weekday			Weekend		
	Mid-7am	7am-6pm	6pm-Mid	Mid-7am	7am-6pm	6pm-Mid
Residential	100%	100%	100%	100%	100%	75%
Commercial	0%	100%	80%	0%	100%	60%
Restaurant	50%	70%	100%	45%	70%	100%
Hotel/Motel	100%	50%	90%	100%	65%	80%
Indoor/Outdoor Recreation	0%	70%	100%	5%	70%	100%
Office /Industrial	5%	100%	5%	0%	40%	10%
Institutional – Educational Facility	0%	100%	50%	0%	0%	0%
Institutional – Place of Worship	0%	50%	0%	0%	100%	0%

SAMPLE CALCULATION

Example: multi-use office development with the following uses within the development; based on current parking requirements, the number of required spaces is:

Use & Square Footage	Parking Requirement	Number of Spaces Needed
Retail: 15,000sf GFA	1 per 500sf GFA	30 spaces
Restaurants: 2,000sf GFA	1 per 100sf GFA	20 spaces
Hotel/Motel: 60 rooms	1.5 per room	90 spaces
Office: 24,000sf GFA	1 per 300sf GFA	80 spaces
TOTAL SPACES REQUIRED		220 spaces

Using the shared parking calculation, these numbers are plugged into the table and using the percentages allotted to each land use for each time of day, are calculated as total spaces required per timeframe.

Land Use Category	Weekday			Weekend		
	Mid-7am	7am-6pm	6pm-Mid	Mid-7am	7am-6pm	6pm-Mid
Residential	-	-	-	-	-	-
Commercial	0	20	16	0	20	12
Restaurant	15	21	30	13.5	21	30
Hotel/Motel	90	45	81	90	58.5	72
Indoor/Outdoor Recreation	-	-	-	-	-	-
Office/Industrial	4	80	4	0	32	8
Institutional – Educational Facility	-	-	-	-	-	-
Institutional – Place of Worship	-	-	-	-	-	-
Totals	109	166	131	103.5	131.5	122

With a straight parking calculation, 220 spaces are required. However, the shared parking provision allows this example multi-use office development to be constructed by-right with 166 spaces (the highest number of spaces within the various timeframes - the 7am to 6pm weekday timeframe). This is because these timeframe calculations take into account the times of day the various uses utilize the most parking.



Figure 7: City of San Diego Shared Parking Agreement Template

 THE CITY OF SAN DIEGO RECORDING REQUESTED BY: THE CITY OF SAN DIEGO AND WHEN RECORDED MAIL TO: 	(THIS SPACE IS FOR RECORDER'S USE ONLY)
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SHARED PARKING AGREEMENT
This SHARED PARKING AGREEMENT ("Agreement") is entered into and effective _____, 20____, by and between _____, _____ and the City of San Diego. RECITALS WHEREAS, pursuant to sections 142.0535 and 142.0545 of the Land Development Code, the City of San Diego specifies criteria which must be met in order to utilize off-site shared parking agreements to satisfy on-site parking requirements. NOW, THEREFORE, in consideration of the recitals and mutual obligations of the parties as herein expressed, _____, _____ and the City of San Diego agree as follows: 1. _____ the owner of the property located at _____, agrees to provide _____ the owner of the property located at _____ with the right to the use of (____) parking spaces _____ from _____ as shown on Exhibit A to this Agreement on property located at _____. 1.1 Applicant: _____ Co-Applicant: _____ Assessor Parcel No: _____ Assessor Parcel No: _____ Legal Description: _____ Legal Description: _____ _____ 2. The parking spaces referred to in this Agreement have been determined to conform to current City of San Diego standards for parking spaces, and the parties agree to maintain the parking spaces to meet those standards. 3. The Parties understand and agree that if for any reason the off-site parking spaces are no longer available for use by _____, _____ will be in violation of the City of San Diego Land Development Code requirements. If the off-site parking spaces are no longer available, Applicant will be required to reduce or cease operation and use of the property at Applicant's address to an intensity approved by the City in order to bring the property into conformance with the Land Development Code requirements for required change for required parking. Applicant agrees to waive any right to contest enforcement of the City's Land Development Code in this manner should this circumstance arise. Although the Applicant may have recourse against the Party supplying off-site parking spaces for breach of this Agreement, in no circumstance shall the City be obligated by this agreement to remedy such breach. The Parties acknowledge that the sole recourse for the City if this Agreement is breached is against the Applicant in a manner as specified in this paragraph, and the City may invoke any remedy provided for in the Land Development Code to enforce such violation against the Applicant.

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DS-267 (03-09)



4. APPENDICES

The following documents are included as Appendices to this report as follows:

- Appendix A: Task 1 - Existing Conditions Report (issued October 2, 2024)
- Appendix B: Task 2 – Future Needs Report (issued October 1, 2024)
- Appendix C: Task 3 – Structured Options Report (issued October 23, 2024)
- Appendix D: Task 4 – Operations Assessment Report (issued November 6, 2024)



APPENDIX A

DATE: *Wednesday, October 2, 2024*

TO: *Stephanie Yezzi - Village of Johnson City*

CC: *John Judge (DESMAN)*

FROM: *Andrew Hill and Reese King- Hill (DESMAN)*

PROJECT: *Village of Johnson City* **PROJECT #:** *30-23127.00*

RE: *Existing Conditions Task Report – Final*

In the fall of 2023, The Village of Johnson City (“the Village” or “Johnson City”) sought a comprehensive assessment of parking conditions and operations to support the continued renaissance of its downtown. The Village awarded the contract to execute this study to the team at DESMAN Inc. (“DESMAN”) in early 2024.

With the construction of the Binghamton University health sciences buildings, expansion of the Wilson Medical Center and United Health Services (UHS) campus, designation as an Innovation District (“iDistrict”), and other redevelopment initiatives, the Village needs to align its public parking infrastructure with these and other improvements to the downtown. Tagged as the “Health and Culture District” where businesses and anchor institutions will be linked through “art, innovation, culture, and placemaking,” the public on- and off-street parking facilities are required to meet existing and projected parking needs as the Village continues to grow with its partnered developers in the area.

STUDY AREA

The Village of Johnson City, in collaboration with DESMAN, defined an overall study area at the initial project scoping meeting. In collaboration with Village leaders, DESMAN divided the study area into four sub-areas as shown in **Figure 1** on the following page. The sub-areas were defined by the predominate land uses and/or core institutions contained therein. The boundaries of each sub-area were commonly defined by major roadways and/or geographic features wherever possible.

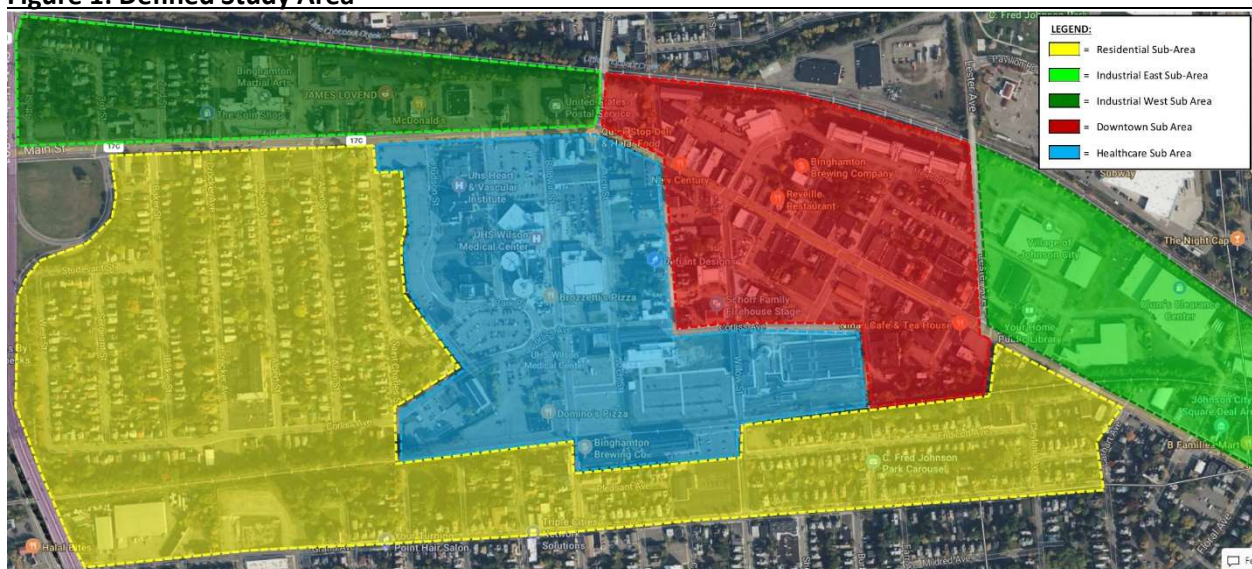
As shown on the following page, each sub-area is color-coded to assist the reader in reviewing the core data and analysis generated within this study. The four sub-areas include:

- The **Residential Sub-Area** (in yellow), which contains both single-family and multi-family housing interspersed with commercial and institutional properties. It is bounded roughly by Route 201 to the west, Main Street to the North, Park Street to the east, and Grand Avenue to the south.
- The **Health Care Sub-Area** (in blue), which encompasses the UHS Wilson Medical Center campus, ranges from Hudson Street to the west, Main Street to the north, Ozalid Road to the east, and Endicott Avenue to the south. This area also included Binghamton University’s Pharmaceutical School and Decker School of Nursing.

- The **Downtown Sub-Area** (in red) is a mixed-use area encompassing retail shops, restaurants, professional offices, single- and multi-family housing. This area is bordered by the Arch Street Overpass to the west, an active rail line to the north, Lester Avenue to the east, the Health Care Sub-Area to the south. Notable buildings within the Central Downtown include the George Kortuz Justice Building and the Victory Lofts.
- The **Industrial Sub-Area** (in green) encompasses primarily commercial and institutional land uses with some medical offices and residential at the far western end. The eastern half of this sub-area is bounded roughly by Lester Avenue, an active rail line, Wells Avenue, and Main Street. The western half is bounded by Route 201, an active rail line, the Arch Street Overpass, and Main Street.

The following analysis of parking supply and observed occupancy and utilization includes assessments of conditions specific to each of these sub-areas, as well as reviews of parking facilities by type.

Figure 1: Defined Study Area



EXISTING CONDITIONS

The following section presents existing parking supply, inventoried in April 2024, and observed utilization recorded on Thursday, April 25th and Saturday, April 27th, 2024.

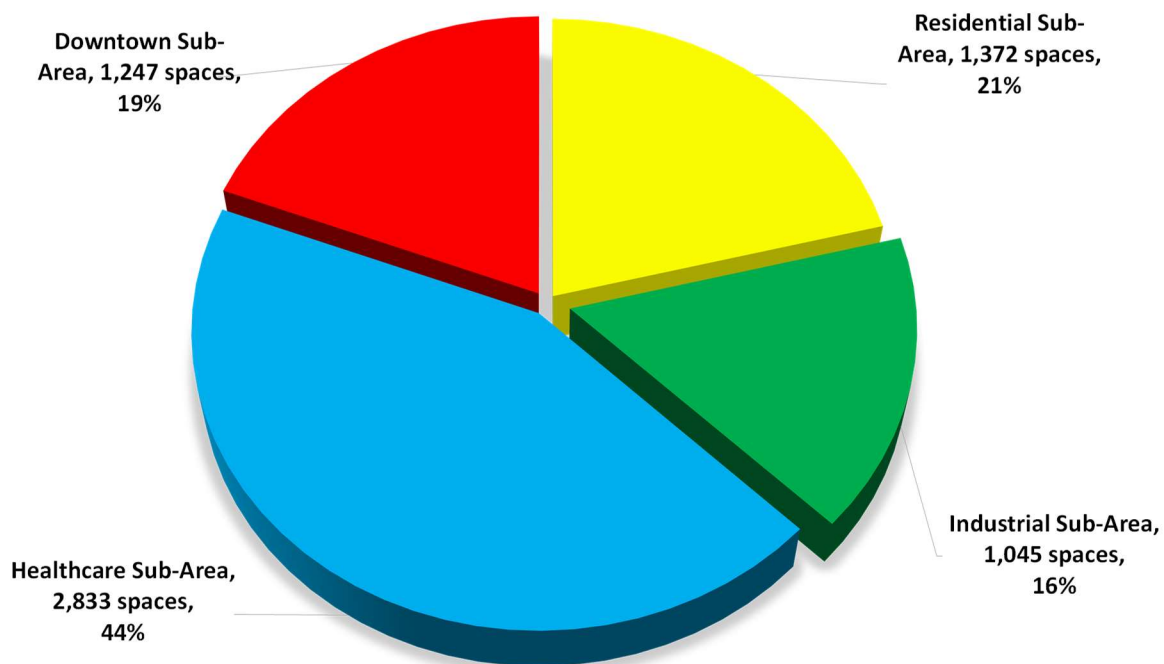
Parking Supply

Within the overall defined study area, composed of the referenced sub-areas as shown in **Figure 1**, DESMAN inventoried a total of 6,497 parking spaces as of April 2024. Master inventories showing parking supply by block, block face, sub-area, ownership and access, and type of facility have been included later in this report.

This inventory relied on direct observation to confirm space counts and did not include: residential driveways; garages associated with single-family homes; “ad hoc” parking areas surrounding residential properties; and surface parking lots dedicated to multi-unit residential properties containing less than 10

spaces. The largest concentration of total parking supply was in the Healthcare Sub-Area, followed by the Residential Sub-Area, as shown in **Figure 2**.

Figure 2: Distribution of Total Parking Supply by Sub-Area



Parking supply is characterized by ownership and access. If a facility or space is Publicly-Owned, that means it is provided by some form of government or public agency, whereas Privately-Owned parking facilities belong to an individual, business, or private entity. Publicly-Accessible spaces can be used by any individual within the boundaries of the regulations specific to the space (i.e., meter payment, time limit, parking permit, etc.) Privately-Accessible parking spaces means that they are set aside for one exclusive user type (e.g., customers, employees, residents, etc.) Typically, most Publicly-Owned facilities are also Publicly-Accessible (*Public/Public*), but there are instances where a public agency owns spaces or facility, but limits access to a select group, such as students, employees, and/or visitors to the institution or agency; these spaces are considered *Public/Private*. Similarly, most Privately-Owned facilities are set aside for an exclusive user group (*Private/Private*), but there may be instances when a Privately-Owned garage or lot is made accessible to the general public on a fee-for-use basis (*Private/Public*).

Table 1: Parking Supply by Sub-Area, Ownership and Access

Sub-Area	Public/ Public	Public/ Private	Private/ Private/ Public	Private/ Public	Total
Residential	725	0	647	0	1,372
Industrial	144	74	827	0	1,045
Healthcare	221	506	2,106	0	2,833
Downtown	411	24	812	0	1,247
Total	1,501	604	4,392	0	6,497

The majority of Public/Public spaces were found along the edge of village streets, although there were eight surface lots belonging to the Village and open to the general public. A small number of facilities were owned by the Village or Binghamton University (public agencies), but restricted to use by employees, faculty, or students only (e.g., Public/Private). The majority of parking across the study area was contained in privately-owned parking lots and garages catering to an exclusive user base. There is no privately-owned parking facility open to the general public within the study area.

Parking supply can also be classified by the type of facility. Parking spaces along the edge of roadways is commonly referred to as **On-Street** or curbside parking and is typically both publicly-owned and -accessible. Within the study area, DESMAN only noted five parking spaces, reserved for Village police vehicles, which differed from this generalization. Roughly 18% of the total supply across the study area was On-Street.

Table 2: Distribution of Supply by Facility Type, Type of Access, and Sub-Area

Sub-Area	On-Street (Public Access)	Off-Street (Public Access)	Off-Street (Private Access)	Total
Residential	725	0	647	1,372
Industrial	46	98	901	1,045
Healthcare	221	0	2,612	2,833
Downtown	188	223	836	1,247
Total	1,180	321	4,996	6,497

Off-Street parking facilities are surface parking lots, above-grade parking structures, and below-grade parking garages. DESMAN inventoried a total of 89 Off-Street parking facilities across the study area, of which all but one were surface lots. Off-Street parking accounted for roughly 82% of the total study area parking supply. The majority of these facilities were privately-owned and reserved for exclusive use; only 6% of the total On-Street Supply was contained in publicly-owned and -accessible Off-Street facilities.

In total, of the 6,497 parking spaces inventoried across the study area, roughly 23% (1,501) of them were open to use by the general public at any given time.

On-Street Parking Supply

On-Street parking spaces, also referred to as “curbside,” account for 18.2% (1,180 spaces) of the total parking supply, as stated above. On-Street parking spaces were inventoried based on posted designations and regulations (i.e., signage, roadway striping, meters, or other indications that parking along the edge of the roadway was authorized) for the most part. In total, DESMAN inventoried 164 block faces across the entire study area which included the following:

- 64 of the 164 block faces (39%) were designated as “No Parking” zones. The largest concentration of “No Parking” zones was in the Residential Sub-Area (21), but they were fairly evenly distributed across all sub-areas.
- Across the 100 block faces which did have some form of On-Street parking there were 1,180 spaces. The largest concentration was in the Residential Sub-Area (61% or 725 spaces) and the smallest concentration was in the Industrial Sub-Areas (4% or 46 spaces).

- 76% of the On-Street parking supply was “free” or unregulated (891 spaces), meaning that there was no prescribed time limit¹, metering charge, or permit requirement associated with using the space. All of the parking in the Industrial and Residential Sub-Areas was unregulated. In the Healthcare Sub-Area, only 21% (46 of 221 spaces) of the On-Street supply was unregulated. In the Downtown Sub-Area, 39% (77 of 188 spaces) of the On-Street supply was unregulated.
- 24% of the On-Street parking supply (289 spaces) was subject to metering to limit length of stay and encourage turnover at curbside spaces. Metering was only observed in the Healthcare and Downtown Sub-Areas which made up the majority of On-Street parking spaces. The rates collected at these meters were universally the same at all meters (\$0.50/hour); length of stay limits vary between 2 and 6 hours.

Detailed maps and tables showing the location and number of On-Street parking spaces within the study area are included as **Exhibits A** at the conclusion of this report.

Off-Street Parking Supply

Off-Street parking spaces, that is those located in lots and garages, accounts for 83.2% (5,317 spaces) of the total parking supply. DESMAN inventoried a total of 89 Off-Street parking facilities across the study area. The highest concentration of Off-Street parking spaces was in the Healthcare Sub-Area (49% or 2,612 spaces), followed by the Downtown Sub-Area (20% or 1,059 spaces), the Industrial Sub-Areas (19% or 999 spaces), and the Residential Sub-Area (12% or 647 spaces). A breakdown on Off-Street parking supply by Sub-Area, Ownership and Access is provided in **Table 3**.

Table 3: Off-Street Parking Supply by Sub-Area, Ownership and Access

Sub-Area	Public/Public		Public/Private		Private/Private		Grand Total	
	Facilities	Spaces	Facilities	Spaces	Facilities	Spaces	Facilities	Spaces
Residential	-	-	-	-	11	647	11	647
Industrial	2	98	2	74	19	827	23	999
Healthcare	-	-	4	322	24	2,290	28	2,612
Downtown	5	223	1	24	21	812	27	1,059
Total	7	321	7	420	75	4,576	89	5,317

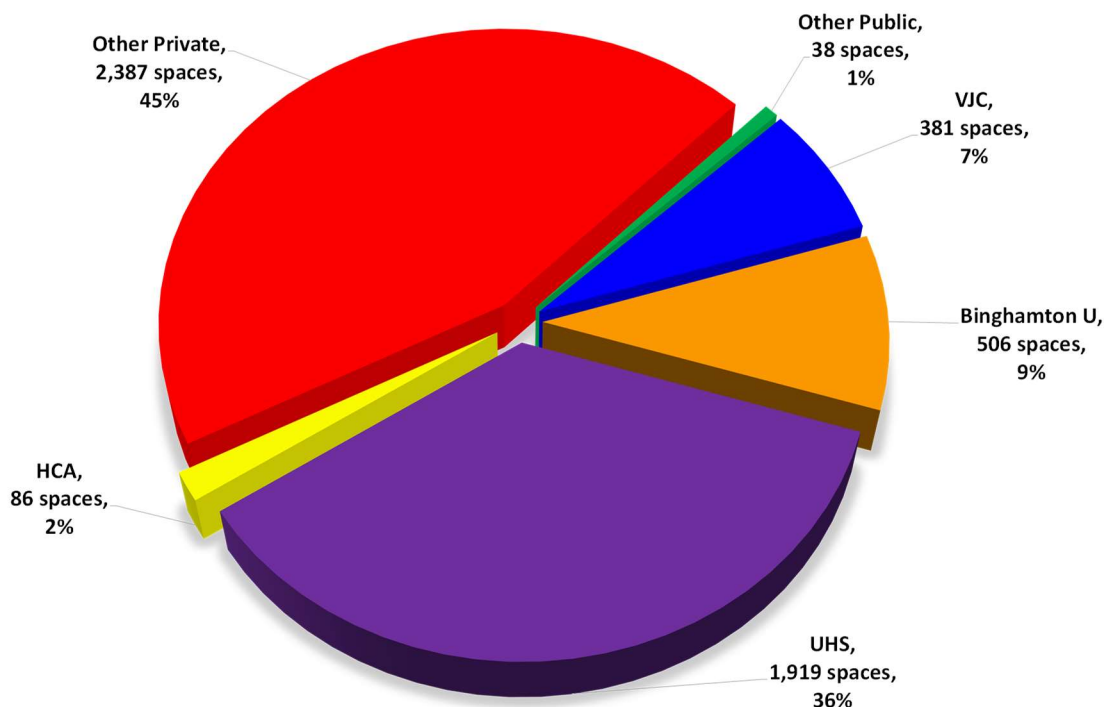
The seven Public/Public parking facilities shown in the table above are all owned by the Village of Johnson City (VJC) and include five municipal lots in the Downtown Sub-Area, as well as lots servicing the VJC offices and the public library in the eastern half of the Industrial Sub-Area. The seven Public/Private facilities were owned by the U.S. Postal Service, the Village of Johnson City, or Binghamton University. The remaining 75 facilities were Private/Private and associated with various business and institutions within the study area including United Health Services (UHS) and the Handicapped Children’s Associations of the Southern Tier (HCA). These two organizations own nineteen (UHS) and two (HCA) of the Private/Private Off-Street facilities respectively; the remaining fifty-four facilities are associated with various businesses.

When strictly addressing ownership, these private businesses and individuals hold roughly 45% of the total Off-Street parking supply, followed by UHS and Binghamton University as illustrated in **Figure 3**, next

¹ Other than those mandated by local ordinance for maximum length of uninterrupted stay or restrictions associated with season snow removal.

page. The Village of Johnson City (VJC) only owns about 7% of the total Off-Street parking supply; of those 381 spaces, roughly 84% (321 spaces) are in facilities which welcome use by the general public.

Figure 3: Distribution of Off-Street Parking Supply by Ownership



Detailed maps and tables showing the location and number of On-Street parking spaces within the study area are included as **Exhibits B** at the conclusion of this report.

Observed Occupancy and Utilization

Occupancy counts were performed across the study area to establish baseline conditions on Thursday, April 25th and Saturday, April 27th, 2023. The counts were planned around good weather for more downtown activity, at a time when Binghamton University was in session. A weekday and weekend were used to see the activity of workers, residents, and visitors within the sub-areas at different times of the week.

Occupancy counts were executed at different times of the day for each sub-area to capture dynamics specific to the predominate land uses. For the Residential Sub-Area, occupancy counts were completed twice on a representative Thursday and Saturday, once in the morning (10:00 AM) to establish utilization once the traditional work day has begun and once in the evening (8:00 PM) to establish stabilized usage after the dinner hour. The Industrial Sub-Area was done on a two-count basis on both a Thursday and Saturday, but at 8:00 AM and 5:00 PM instead to capture conditions at the start and end of the traditional workday. Due to the constantly changing dynamics of the institutional and medical land uses contained within, occupancy counts across the Healthcare Sub-Area were executed every other hour starting at 7:00 AM and concluding at 5:00 PM on a representative weekday and weekend day. Lastly, and due to the variety of different land uses, the Downtown Sub-Area was inventoried on an hourly basis starting at 10:00 AM until 8:00PM on the representative weekday and weekend. Data was collected on a block-face by

block-face and facility-by-facility basis during the counts noting both *Occupancy* (e.g., the number of vehicles parked) and *Utilization* (e.g., the percentage of supply in use).

Residential Sub-Area Occupancy and Adequacy

Parking occupancy counts were executed on Thursday, April 25th and Saturday, April 27th at 10:00 AM and 8:00 PM to establish stabilized parking utilization in the sub-area at the start of the standard business day and end of the traditional workday, surmising these time periods would provide the best contrast between the businesses and institutions located there and the residents who lived in the study area.

Across the Off-Street Supply for the sub-area, DESMAN observed a peak occupancy of 108 cars parked in 647 spaces for an aggregate utilization rate of 17% at 10:00 AM on the surveyed weekday. As shown in **Table 4**, occupancy and utilization varied by facility as well as the day of the week and time of day, but at no time did DESMAN record conditions where occupancy exceeded 75% of the capacity of any given facility.

Table 4: Residential Sub-Area Off-Street Parking Occupancy and Utilization

ID	Facility Name	Ownership/ Access	Supply	Observed Parking Conditions, 4/25 and 4/27							
				Thurs, 10:00 AM		Thurs, 8:00 PM		Sat, 10:00 AM		Sat, 8:00 PM	
				Occ	Util	Occ	Util	Occ	Util	Occ	Util
19	JC Learning Center Lot	Private/Private	15	2	13%	4	27%	0	0%	0	0%
20	19 Baker Street Lot	Private/Private	14	4	29%	1	7%	2	14%	2	14%
21	16 Baker Street Lot	Private/Private	40	8	20%	2	5%	2	5%	1	3%
22	Barber Memorial Home Lot	Private/Private	42	0	0%	0	0%	1	2%	1	2%
23	Campus Square North Lot	Private/Private	36	8	22%	13	36%	13	36%	11	31%
24	Campus Square South Lot	Private/Private	99	26	26%	21	21%	25	25%	23	23%
25	Moore Tire Sales Lot	Private/Private	36	27	75%	17	47%	16	44%	17	47%
26	DGS General Contractor Lot	Private/Private	6	0	0%	0	0%	0	0%	0	0%
27	346 Grand Ave Lot	Private/Private	150	0	0%	0	0%	0	0%	0	0%
57	Islamic Center Lot	Private/Private	178	11	6%	1	1%	1	1%	5	3%
58	119 Endicott/HCA Lot	Private/Private	31	22	71%	4	13%	5	16%	3	10%
Total			647	108	17%	63	10%	65	10%	63	10%

Within the On-Street Supply across the sub-area, aggregate occupancy was greater, with 220 cars recorded at the peak hour (Saturday, 10:00 AM) against 725 total parking spaces, resulting in a 30% utilization rate as shown in **Table 6** on the next page. As with the Off-Street Supply, DESMAN did note instances where utilization of individual block faces was higher than the aggregate, but never exceeded 83% utilization on any given block face within the sub-area.

In summary, and as shown in **Table 5**, the highest total occupancy across the sub- area was recorded at 10:00 AM on Thursday, April 25th, when 294 cars occupied 21% of the 1,372 spaces within the sub-area.

Table 5: Residential Sub-Area Total Parking Occupancy and Utilization

Type of Parking	Supply	Observed Parking Conditions, 4/25 and 4/27							
		Thurs, 10:00 AM		Thurs, 8:00 PM		Sat, 10:00 AM		Sat, 8:00 PM	
		Occ	Util	Occ	Util	Occ	Util	Occ	Util
Off-Street	647	108	17%	63	10%	65	10%	63	10%
On-Street	725	186	26%	204	28%	220	30%	195	27%
TOTAL	1,372	294	21%	267	19%	285	21%	258	19%

Table 6: Residential Sub-Area On-Street Parking Occupancy and Utilization

ID	Street Name	Cross Streets	POT	Supply	Observed Parking Conditions, 4/25 and 4/27							
					Thurs, 10:00 AM		Thurs, 8:00 PM		Sat, 10:00 AM		Sat, 8:00 PM	
					Occ	Util	Occ	Util	Occ	Util	Occ	Util
A	West St	Sturtevant St & Corliss Ave	NB	21	3	14%	7	33%	7	33%	5	24%
			SB	44	3	7%	6	14%	3	7%	3	7%
B	Sergeant St	Sturtevant St & Corliss Ave	NB	22	8	36%	9	41%	14	64%	10	45%
			SB	20	6	30%	8	40%	10	50%	11	55%
C	Baker St	Corliss Ave & Main St	NB	36	11	31%	10	28%	8	22%	9	25%
			SB	25	6	24%	9	36%	10	40%	9	36%
D	Crocker Ave	Main St & Corliss Ave	NB	NP	0	0%	0	0%	0	0%	0	0%
			SB	33	7	21%	11	33%	7	21%	15	45%
E	Albert St	Main St & Corliss Ave	NB	23	5	22%	10	43%	9	39%	6	26%
			SB	31	8	26%	11	35%	12	39%	12	39%
F	Allen St	Corliss Ave & Main St	NB	34	3	9%	9	26%	7	21%	8	24%
			SB	35	5	14%	8	23%	12	34%	7	20%
G	St Charles St	Corliss Ave & Main St	NB	35	12	34%	5	14%	7	20%	6	17%
			SB	36	18	50%	10	28%	11	31%	11	31%
H	Main St	Route 201 & St. Charles St	EB	OSA	0	0%	0	0%	0	0%	0	0%
			WB	NP	0	0%	0	0%	0	0%	0	0%
I	Sturtevant St	West St & Sergeant St	EB	14	1	7%	0	0%	2	14%	1	7%
			WB	8	0	0%	2	25%	1	13%	0	0%
J	Sturtevant St	Sergeant St & Baker St	EB	9	3	33%	1	11%	4	44%	2	22%
			WB	6	1	17%	1	17%	2	33%	2	33%
K	Corliss Ave	West St & Sergeant St	EB	7	0	0%	1	14%	1	14%	1	14%
			WB	6	1	17%	0	0%	1	17%	3	50%
L	Corliss Ave	Sergeant St & Baker St	EB	7	2	29%	2	29%	3	43%	3	43%
			WB	6	2	33%	1	17%	2	33%	2	33%
M	Corliss Ave	Baker St & Crocker Ave	EB	5	0	0%	0	0%	0	0%	1	20%
			WB	7	1	14%	1	14%	1	14%	1	14%
N	Corliss Ave	Crocker Ave & Albert St	EB	4	0	0%	0	0%	0	0%	0	0%
			WB	NP	0	0%	0	0%	0	0%	0	0%
O	Corliss Ave	Albert St & Allen St	EB	6	1	17%	1	17%	0	0%	1	17%
			WB	5	0	0%	0	0%	0	0%	0	0%
P	Corliss Ave	Allen St & St Charles St	EB	6	3	50%	2	33%	2	33%	2	33%
			WB	NP	0	0%	0	0%	0	0%	0	0%
Q	Park Pl	St Charles St & Hudson St	EB	NP	0	0%	0	0%	0	0%	0	0%
			WB	6	3	50%	0	0%	0	0%	0	0%
R	Grand Ave	Allen St / Elizabeth St & St Charles St	EB	NP	0	0%	0	0%	0	0%	0	0%
			WB	5	1	20%	1	20%	3	60%	3	60%
S	Grand Ave	St Charles St & Hudson St	EB	NP	1	0%	0	0%	1	0%	1	0%
			WB	3	2	67%	2	67%	1	33%	0	0%
T	Grand Ave	Hudson St & Harrison St	EB	NP	1	0%	0	0%	1	0%	3	0%
			WB	4	3	75%	3	75%	2	50%	3	75%
U	Grand Ave	Harrison St & Baldwin St	EB	NP	0	0%	0	0%	0	0%	0	0%
			WB	3	2	67%	2	67%	1	33%	0	0%
V	Grand Ave	Baldwin St & Willow St	EB	NP	0	0%	0	0%	0	0%	0	0%
			WB	19	3	16%	2	11%	1	5%	1	5%
W	Grand Ave	Willow St & Johnson St	EB	NP	0	0%	0	0%	0	0%	0	0%
			WB	13	2	15%	2	15%	2	15%	3	23%
X	Grand Ave	Johnson St & Cleveland Ave	EB	NP	0	0%	0	0%	0	0%	0	0%
			WB	21	11	52%	9	43%	9	43%	12	57%
Y	Grand Ave	Cleveland Ave & Carhart Ave	EB	NP	0	0%	0	0%	0	0%	0	0%
			WB	6	3	50%	3	50%	4	67%	3	50%
Z	St Charles St	Grand Ave & Dead End	NB	NP	0	0%	0	0%	0	0%	0	0%
			SB	10	3	30%	2	20%	4	40%	3	30%
AA	Hudson St	Grand Ave & Dead End	NB	9	5	56%	3	33%	4	44%	2	22%
			SB	9	0	0%	0	0%	0	0%	0	0%
BB	Harrison St	Grand Ave & Dead End	NB	3	1	33%	0	0%	0	0%	2	67%
			SB	10	3	30%	1	10%	2	20%	2	20%
CC	Baldwin St	Grand Ave & Railway Track	NB	NP	0	0%	0	0%	0	0%	0	0%
			SB	10	5	50%	5	50%	2	20%	1	10%
DD	Willow St	Endicott St & Grand Ave	NB	NP	0	0%	0	0%	0	0%	0	0%
			SB	NP	0	0%	0	0%	0	0%	0	0%
EE	Johnson St	Endicott St & Grand Ave	NB	NP	0	0%	0	0%	0	0%	0	0%
			SB	6	2	33%	4	67%	5	83%	4	67%
FF	Cleveland Ave	Main St Terrace & Grand Ave	NB	6	2	33%	5	83%	4	67%	5	83%
			SB	12	4	33%	8	67%	7	58%	8	67%
GG	Endicott Ave	Willow St & Johnson St	EB	13	4	31%	5	38%	6	46%	0	0%
			WB	13	5	38%	7	54%	9	69%	0	0%
HH	Endicott Ave	Johnson St & Cleveland Ave	EB	18	4	22%	4	22%	6	33%	0	0%
			WB	18	3	17%	5	28%	6	33%	0	0%
II	Custer Ave	Cleveland Ave & Carhart Ave	EB	NP	0	0%	0	0%	0	0%	0	0%
			WB	9	1	11%	3	33%	0	0%	3	33%
JJ	Main St Terrace	Cleveland Ave to Dead End	EB	8	2	25%	3	38%	4	50%	5	63%
			WB	NP	0	0%	0	0%	0	0%	0	0%
Total				725	186	26%	204	28%	220	30%	195	27%

OSA = Blockface located in Other Sub-Area

NP = No Parking Zone

Industrial Sub-Area Occupancy and Adequacy

Parking occupancy counts were executed on Thursday, April 25th and Saturday, April 27th at 8:00 AM and 5:00 PM to establish stabilized parking utilization in the sub-areas at the start and end of the standard business day.

Across the Off-Street Supply for the Industrial East Sub-Area, DESMAN observed a peak occupancy of 40 cars parked in 317 spaces for an aggregate utilization rate of 13% at 5:00 PM on the surveyed weekday. As shown in **Table 7**, occupancy and utilization varied by facility as well as the day of the week and time of day, but at no time did DESMAN record conditions where occupancy exceeded 79% of the capacity of any given facility.

Table 7: Industrial East Sub-Area Off-Street Parking Occupancy and Utilization

ID	Facility Name	Ownership/ Access	Supply	Observed Parking Conditions, 4/25 and 4/27							
				Thurs, 8:00 AM		Thurs, 5:00 PM		Sat, 8:00 AM		Sat, 5:00 PM	
				Occ	Util	Occ	Util	Occ	Util	Occ	Util
79	Village Hall Lot	Public/Public	58	0	0%	1	2%	0	0%	0	0%
80	Village Hall Public Works Lot	Public/Private	36	2	6%	2	6%	0	0%	0	0%
81	JH Robotics Lot	Private/Private	46	14	30%	6	13%	0	0%	0	0%
82	Public Library Lot	Public/Public	40	1	3%	10	25%	0	0%	0	0%
83	Equinox Broadcasting Lot	Private/Private	32	2	6%	3	9%	1	3%	1	3%
84	Slavik & Company Lot	Private/Private	12	2	17%	0	0%	0	0%	0	0%
85	Olum's Clearance Center Lot	Private/Private	63	0	0%	8	13%	4	6%	8	13%
86	Southern Tier Auto Care Lot	Private/Private	19	15	79%	10	53%	6	32%	5	26%
87	Car Wash Lot	Private/Private	11	0	0%	0	0%	0	0%	0	0%
Total			317	36	11%	40	13%	11	3%	14	4%

Across the Off-Street Supply for the Industrial West Sub-Area, DESMAN observed a peak occupancy of 243 cars parked in 682 spaces for an aggregate utilization rate of 36% at 8:00 AM on the surveyed weekday. As shown in **Table 8**, occupancy and utilization varied by facility as well as the day of the week and time of day, but at no time did DESMAN record conditions where occupancy exceeded 81% of the capacity of any given facility.

Table 8: Industrial West Sub-Area Off-Street Parking Occupancy and Utilization

ID	Facility Name	Ownership/ Access	Supply	Observed Parking Conditions, 4/25 and 4/27							
				Thurs, 8:00 AM		Thurs, 5:00 PM		Sat, 8:00 AM		Sat, 5:00 PM	
				Occ	Util	Occ	Util	Occ	Util	Occ	Util
1	UHS Primary Care Lot	Private/Private	32	20	63%	5	16%	29	91%	1	3%
2	All Saints Church Lot	Private/Private	39	1	3%	0	0%	1	3%	0	0%
3	Old JC High School / Rear Lot	Private/Private	50	3	6%	11	22%	1	2%	12	24%
4	Old JC High School / Front Lot	Private/Private	97	15	15%	22	23%	13	13%	25	26%
5	Women's OBGYN Assoc Lot	Private/Private	65	22	34%	8	12%	25	38%	3	5%
6	United Dental Services Lot	Private/Private	19	1	5%	2	11%	3	16%	1	5%
7	Sante CWHC Lot	Private/Private	39	22	56%	5	13%	20	51%	2	5%
8	UHS Pharmacy Lot	Private/Private	63	27	43%	17	27%	24	38%	4	6%
9	McDonalds Lot	Private/Private	32	12	38%	21	66%	5	16%	26	81%
10	Walgreens/ UHS Lot	Private/Private	97	66	68%	41	42%	65	67%	11	11%
11	NBT Bank Lot	Private/Private	33	7	21%	3	9%	6	18%	0	0%
12	WMC Employee Parking Lot	Private/Private	58	26	45%	12	21%	26	45%	3	5%
13	US Postal Service Lot	Public/Private	38	13	34%	3	8%	9	24%	0	0%
14	305 Main Street Bldg. Lot	Private/Private	20	8	40%	1	5%	8	40%	0	0%
Total			682	243	36%	151	22%	235	34%	88	13%

Within the On-Street Supply across both sub-areas, aggregate occupancy was lesser, with 34 cars recorded at the peak hour (Saturday, 5:00 PM) against 46 total parking spaces, resulting in a 74% utilization rate as shown in **Table 9**. As with the Off-Street Supply, DESMAN did note instances where utilization of individual block faces was higher than the aggregate, but never exceeded 83% utilization on any given block face within the sub-area.

Table 9: Industrial Sub-Area On-Street Parking Occupancy and Utilization

ID	Sub-Area	Street Name	Cross Streets	POT	Supply	Observed Parking Conditions, 4/25 and 4/27							
						Thurs, 8:00 AM		Thurs, 5:00 PM		Sat, 8:00 AM		Sat, 5:00 PM	
						Occ	Util	Occ	Util	Occ	Util	Occ	Util
A	Industrial East	Wells Ave	Main St & Dead End	NB	NP	0	0%	0	0%	0	0%	0	0%
				SB	NP	0	0%	0	0%	0	0%	0	0%
B	Industrial East	Brigham Ave	Main St & Dead End	NB	NP	0	0%	0	0%	0	0%	0	0%
				SB	NP	0	0%	0	0%	0	0%	0	0%
C	Industrial East	Lester Ave	Main St & Rail Line	NB	NP	0	0%	0	0%	0	0%	0	0%
				SB	OSA	0	0%	0	0%	0	0%	0	0%
D	Industrial East	Main St	Lester Ave & Wells Ave	EB	NP	0	0%	0	0%	0	0%	0	0%
				WB	OSA	0	0%	0	0%	0	0%	0	0%
E	Industrial West	Arch St	Main St & Rail Line	NB	OSA	0	0%	0	0%	0	0%	0	0%
				SB	NP	0	0%	0	0%	0	0%	0	0%
F	Industrial West	1st St	Main St & Rail Line	NB	NP	0	0%	0	0%	0	0%	0	0%
				SB	8	2	25%	3	38%	5	63%	6	75%
G	Industrial West	2nd St	Main St & Rail Line	NB	NP	0	0%	0	0%	0	0%	0	0%
				SB	7	2	29%	4	57%	5	71%	5	71%
H	Industrial West	3rd St	Main St & Endwell St	NB	NP	0	0%	0	0%	0	0%	0	0%
				SB	11	3	27%	5	45%	7	64%	7	64%
I	Industrial West	4th St	Main St & Endwell St	NB	8	2	25%	3	38%	5	63%	6	75%
				SB	NP	0	0%	0	0%	0	0%	0	0%
J	Industrial West	Endwell St	3rd St & 4th St	WB	12	2	17%	6	50%	8	67%	10	83%
				EB	NP	0	0%	0	0%	0	0%	0	0%
K	Industrial West	Main St	4th St & Arch St	WB	NP	0	0%	0	0%	0	0%	0	0%
				EB	OSA	0	0%	0	0%	0	0%	0	0%
Total					46	11	24%	21	46%	30	65%	34	74%

OSA = Blockface located in Other Sub-Area

NP = No Parking Zone

In summary, and as shown in **Table 10**, the highest total occupancy across the sub-area was recorded at 8:00 AM on Thursday, April 25th, when 290 cars occupied 28% of the 1,045 spaces within the sub-area.

Table 10: Industrial Sub-Area Total Parking Occupancy and Utilization

Type of Parking	Supply	Observed Parking Conditions, 4/25 and 4/27							
		Thurs, 8:00 AM		Thurs, 5:00 PM		Sat, 8:00 AM		Sat, 5:00 PM	
		Occ	Util	Occ	Util	Occ	Util	Occ	Util
Off-Street	999	279	28%	191	19%	246	25%	102	10%
On-Street	46	11	24%	21	46%	30	65%	34	74%
TOTAL	1,045	290	28%	212	20%	276	26%	136	13%

Healthcare Sub-Area Occupancy and Adequacy

Due to frequent changes in patient, visitor, employee, facility and student presence within this sub-area, parking occupancy counts were executed every odd hour between 7:00 AM and 5:00 PM on Thursday, April 25th and Saturday, April 27th. The results of these exercises are presented as Tables 11, 12, 13, and 14 on the following pages detailing observed conditions for the Off-Street Supply on the survey weekday (Thursday, 4/25) and weekend (Saturday, 4/27) as well observed conditions for the On-Street Supply for the same days.

Table 11: Healthcare Sub-Area Off-Street Weekday Parking Occupancy and Utilization

ID	Facility Name	Ownership/ Access	Supply	Observed Parking Conditions, Thursday, 4/25											
				7:00 AM		9:00 AM		11:00 AM		1:00 PM		3:00 PM		5:00 PM	
				Occ	Util	Occ	Util	Occ	Util	Occ	Util	Occ	Util	Occ	Util
28	UHS Employee Parking Lot	Private/Private	80	78	98%	78	98%	75	94%	77	96%	42	53%	38	48%
29	UHS Wilson Square East Patient Lot	Private/Private	50	60	120%	57	114%	41	82%	54	108%	25	50%	23	46%
30	UHS Wilson Square West Patient Lot	Private/Private	91	86	95%	90	99%	89	98%	87	96%	45	49%	41	45%
31	UHS MRI Parking Lot	Private/Private	12	6	50%	6	50%	6	50%	4	33%	6	50%	6	50%
32	UHS HVI Patient Lot	Private/Private	18	16	89%	20	111%	9	50%	14	78%	12	67%	12	67%
33	UHS Wilson Sq/Place Employee Lot	Private/Private	99	105	106%	115	116%	120	121%	108	109%	39	39%	35	35%
34	UHS Neurosurgery/Ophthalmology Lot	Private/Private	100	87	87%	99	99%	97	97%	103	103%	78	78%	73	73%
35	UHS Pain & Spine Clinic Lot	Private/Private	8	5	63%	9	113%	6	75%	7	88%	3	38%	3	38%
36	WMC Employee Parking Lot	Private/Private	183	186	102%	189	103%	185	101%	175	96%	152	83%	89	49%
37	Eckelberger Tower Lot	Private/Private	129	51	40%	51	40%	58	45%	67	52%	51	40%	31	24%
38	122 Badwin Street Parking Lot	Private/Private	59	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
39	WMC Employee Parking Lot	Private/Private	213	184	86%	193	91%	200	94%	191	90%	125	59%	53	25%
40	UHS Evening Lot	Private/Private	99	0	0%	0	0%	9	9%	35	35%	48	48%	43	43%
41	Dunkin Donuts Lot	Private/Private	13	11	85%	13	100%	7	54%	4	31%	2	15%	3	23%
42	Domino's Pizza Lot	Private/Private	20	0	0%	0	0%	3	15%	7	35%	6	30%	6	30%
43	Sarah Jane Johnson Church Lot	Private/Private	35	19	54%	26	74%	22	63%	25	71%	2	6%	2	6%
44	WMC Patient & Visitor Parking Lot	Private/Private	156	64	41%	108	69%	95	61%	128	82%	120	77%	117	75%
45	WMC Physician/Employee Garage	Private/Private	355	104	29%	189	53%	203	57%	178	50%	165	46%	106	30%
46	WMC North Faatz Alley Employee Lot	Private/Private	70	64	91%	62	89%	61	87%	58	83%	29	41%	10	14%
47	WMC South Faatz Alley Employee Lot	Private/Private	135	48	36%	53	39%	60	44%	58	43%	42	31%	9	7%
48	8 Bits Restaurant Lot	Private/Private	15	0	0%	0	0%	3	20%	2	13%	3	20%	3	20%
49	18 Broad St/HCA Lot	Private/Private	55	31	56%	41	75%	41	75%	41	75%	1	2%	2	4%
51	OBGYN Breast Center Lot	Private/Private	16	16	100%	15	94%	14	88%	16	100%	0	0%	0	0%
53	BU School of Pharmacy Visitor Lot	Public/Private	10	0	0%	1	10%	2	20%	2	20%	1	10%	1	10%
54	Binghamton University - R&D Bldg Lot	Public/Private	12	2	17%	1	8%	1	8%	2	17%	1	8%	1	8%
55	Binghamton U R-HSC Commuter Lot	Public/Private	279	60	22%	122	44%	122	44%	97	35%	135	48%	63	23%
56	Baldwin/Sunrise Building Lots	Private/Private	95	21	22%	19	20%	21	22%	25	26%	23	24%	19	20%
59	Binghamton U R-HSC 2 Commuter Lot	Public/Private	205	52	25%	121	59%	112	55%	104	51%	81	40%	21	10%
Total			2,612	1,356	52%	1,678	64%	1,662	64%	1,669	64%	1,237	47%	810	31%

Red Bold = Utilization 90% or higher

Purple Bold = Utilization greater than capacity

Table 12: Healthcare Sub-Area Off-Street Weekend Parking Occupancy and Utilization

ID	Facility Name	Ownership/ Access	Supply	Observed Parking Conditions, Saturday, 4/27											
				7:00 AM		9:00 AM		11:00 AM		1:00 PM		3:00 PM		5:00 PM	
				Occ	Util	Occ	Util	Occ	Util	Occ	Util	Occ	Util	Occ	Util
28	UHS Employee Parking Lot	Private/Private	80	2	3%	2	3%	1	1%	1	1%	0	0%	1	1%
29	UHS Wilson Square East Patient Lot	Private/Private	50	8	16%	10	20%	8	16%	9	18%	5	10%	5	10%
30	UHS Wilson Square West Patient Lot	Private/Private	91	3	3%	2	2%	2	2%	2	2%	0	0%	0	0%
31	UHS MRI Parking Lot	Private/Private	12	0	0%	0	0%	0	0%	0	0%	0	0%	1	8%
32	UHS HVI Patient Lot	Private/Private	18	4	22%	5	28%	4	22%	4	22%	1	6%	2	11%
33	UHS Wilson Sq/Place Employee Lot	Private/Private	99	11	11%	11	11%	12	12%	11	11%	11	11%	8	8%
34	UHS Neurosurgery/Ophthalmology Lot	Private/Private	100	55	55%	56	56%	66	66%	65	65%	64	64%	62	62%
35	UHS Pain & Spine Clinic Lot	Private/Private	8	0	0%	0	0%	0	0%	0	0%	1	13%	0	0%
36	WMC Employee Parking Lot	Private/Private	183	119	65%	112	61%	118	64%	101	55%	113	62%	83	45%
37	Eckelberger Tower Lot	Private/Private	129	33	26%	32	25%	34	26%	28	22%	29	22%	30	23%
38	122 Badwin Street Parking Lot	Private/Private	59	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
39	WMC Employee Parking Lot	Private/Private	213	36	17%	36	17%	36	17%	36	17%	31	15%	16	8%
40	UHS Evening Lot	Private/Private	99	10	10%	10	10%	10	10%	10	10%	20	20%	20	20%
41	Dunkin Donuts Lot	Private/Private	13	13	100%	6	46%	3	23%	2	15%	2	15%	3	23%
42	Domino's Pizza Lot	Private/Private	20	0	0%	0	0%	2	10%	4	20%	6	30%	9	45%
43	Sarah Jane Johnson Church Lot	Private/Private	35	9	26%	5	14%	8	23%	4	11%	1	3%	2	6%
44	WMC Patient & Visitor Parking Lot	Private/Private	156	48	31%	58	37%	83	53%	81	52%	89	57%	93	60%
45	WMC Physician/Employee Garage	Private/Private	355	94	26%	92	26%	102	29%	92	26%	62	17%	64	18%
46	WMC North Faatz Alley Employee Lot	Private/Private	70	10	14%	10	14%	10	14%	11	16%	6	9%	7	10%
47	WMC South Faatz Alley Employee Lot	Private/Private	135	3	2%	4	3%	5	4%	5	4%	3	2%	2	1%
48	8 Bits Restaurant Lot	Private/Private	15	0	0%	0	0%	3	20%	2	13%	3	20%	4	27%
49	18 Broad St/HCA Lot	Private/Private	55	2	4%	2	4%	4	7%	3	5%	3	5%	1	2%
51	OBGYN Breast Center Lot	Private/Private	16	2	13%	2	13%	2	13%	1	6%	0	0%	2	13%
53	BU School of Pharmacy Visitor Lot	Public/Private	10	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
54	Binghamton University - R&D Bldg Lot	Public/Private	12	1	8%	1	8%	1	8%	1	8%	0	0%	1	8%
55	Binghamton U R-HSC Commuter Lot	Public/Private	279	3	1%	5	2%	4	1%	5	2%	9	3%	10	4%
56	Baldwin/Sunrise Building Lots	Private/Private	95	21	22%	18	19%	15	16%	19	20%	24	25%	19	20%
59	Binghamton U R-HSC 2 Commuter Lot	Public/Private	205	2	1%	3	1%	12	6%	15	7%	14	7%	16	8%
Total			2,612	489	19%	482	18%	545	21%	512	20%	497	19%	461	18%

Red Bold = Utilization 90% or higher

Purple Bold = Utilization greater than capacity

Table 13: Healthcare Sub-Area On-Street Weekday Parking Occupancy and Utilization

ID	Street Name	Cross Streets	POT	Type	Supply	Observed Parking Conditions, Thursday, 4/25											
						7:00 AM		9:00 AM		11:00 AM		1:00 PM		3:00 PM		5:00 PM	
						Occ	Util	Occ	Util	Occ	Util	Occ	Util	Occ	Util	Occ	Util
A	Main St	Arch St & N Broad St*	EB	Meter	3	0	0%	0	0%	0	0%	1	33%	2	67%	4	133%
			WB	OSA	0	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
B	Hudson St	Main St & Park Pl	NB	Meter	21	11	52%	16	76%	13	62%	15	71%	6	29%	1	5%
			SB	NP	0	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
C	Park Pl	Hudson St	EB	NP	0	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
			WB	Meter	6	0	0%	4	67%	4	67%	2	33%	1	17%	0	0%
D	Hudson St	Park Pl & Corliss Ave	NB	NP	0	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
			SB	Meter	6	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
E	Park Pl	Hudson St & Harrison St	EB	NP	0	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
			WB	Meter	6	3	50%	3	50%	5	83%	5	83%	2	33%	1	17%
F	Park Pl	Harrison St & Corliss Ave	EB	NP	0	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
			WB	Meter	4	4	100%	5	125%	5	125%	4	100%	2	50%	3	75%
G	Corliss Ave	St. Charles St & Hudson St	EB	Meter	5	0	0%	1	20%	2	40%	1	20%	0	0%	1	20%
			WB	Free	10	5	50%	3	30%	2	20%	2	20%	2	20%	3	30%
H	Corliss Ave	Hudson St & Baldwin St	EB	Meter	12	0	0%	1	8%	3	25%	4	33%	6	50%	3	25%
			WB	NP	0	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
I	Harrison St	Main St & Park Pl	NB	NP	0	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
			SB	Meter	18	11	61%	11	61%	8	44%	9	50%	5	28%	3	17%
J	Baldwin St	Main St & Corliss Ave	NB	Meter	11	11	100%	9	82%	13	118%	9	82%	6	55%	0	0%
			SB	Meter	3	3	100%	3	100%	3	100%	3	100%	3	100%	0	0%
K	Baldwin St	Corliss Ave & Faatz Alley	NB	NP	0	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
			SB	Free	4	2	50%	2	50%	2	50%	2	50%	2	50%	1	25%
L	Baldwin St	Faatz Alley & Railroad Track	NB	NP	0	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
			SB	NP	0	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
M	Corliss Ave	Baldwin St & Arch St	EB	NP	0	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
			WB	Meter	15	2	13%	2	13%	4	27%	4	27%	4	27%	3	20%
N	Arch St	Main St & Corliss Ave	NB	Meter	23	11	48%	11	48%	12	52%	14	61%	4	17%	0	0%
			SB	Meter	24	8	33%	9	38%	9	38%	8	33%	5	21%	0	0%
O	Arch St	Corliss Ave & Faatz Alley	NB	NP	0	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
			SB	Meter	4	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
P	N Broad St	Main St & Corliss Ave	NB	OSA	0	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
			SB	Meter	14	2	14%	4	29%	0	0%	3	21%	5	36%	5	36%
Q	Corliss Ave	Arch St & N Broad St	EB	NP	0	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
			WB	NP	0	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
R	Corliss Ave	N Broad St & Willow St	EB	Free	11	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
			WB	OSA	0	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
S	Corliss Ave	Willow St & Jennison Ave	EB	Free	6	0	0%	0	0%	0	0%	0	0%	1	17%	1	17%
			WB	OSA	0	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
T	Corliss Ave	Jennison Ave & Ozalid Rd	EB	Free	15	0	0%	0	0%	0	0%	1	7%	0	0%	0	0%
			WB	OSA	0	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
Total					221	73	33%	84	38%	85	38%	87	39%	56	25%	29	13%

* The eastbound curb of Main Street between St Charles Street and Arch Street is a continuous "No Parking" zone.

OSA = Blockface located in Other Sub-Area

Bold Red = Utilization 90% or higher

NP = No Parking Zone

Bold Purple = Utilization greater than capacity

Table 14: Healthcare Sub-Area On-Street Weekend Parking Occupancy and Utilization

ID	Street Name	Cross Streets	POT	Type	Supply	Observed Parking Conditions, Saturday, 4/27											
						7:00 AM		9:00 AM		11:00 AM		1:00 PM		3:00 PM		5:00 PM	
						Occ	Util	Occ	Util	Occ	Util	Occ	Util	Occ	Util	Occ	Util
A	Main St	Arch St & N Broad St*	EB	Meter	3	0	0%	1	33%	2	67%	0	0%	1	33%	3	100%
			WB	OSA	0	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
B	Hudson St	Main St & Park Pl	NB	Meter	21	1	5%	1	5%	0	0%	0	0%	0	0%	0	0%
			SB	NP	0	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
C	Park Pl	Hudson St	EB	NP	0	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
			WB	Meter	6	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
D	Hudson St	Park Pl & Corliss Ave	NB	NP	0	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
			SB	Meter	6	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
E	Park Pl	Hudson St & Harrison St	EB	NP	0	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
			WB	Meter	6	2	33%	2	33%	3	50%	3	50%	3	50%	1	17%
F	Park Pl	Harrison St & Corliss Ave	EB	NP	0	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
			WB	Meter	4	3	75%	2	50%	4	100%	3	75%	3	75%	3	75%
G	Corliss Ave	St. Charles St & Hudson St	EB	Meter	5	0	0%	0	0%	1	20%	1	20%	1	20%	0	0%
			WB	Free	10	6	60%	5	50%	4	40%	3	30%	3	30%	5	50%
H	Corliss Ave	Hudson St & Baldwin St	EB	Meter	12	1	8%	1	8%	2	17%	2	17%	1	8%	1	8%
			WB	NP	0	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
I	Harrison St	Main St & Park Pl	NB	NP	0	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
			SB	Meter	18	3	17%	5	28%	8	44%	8	44%	7	39%	7	39%
J	Baldwin St	Main St & Corliss Ave	NB	Meter	11	6	55%	6	55%	8	73%	11	100%	6	55%	5	45%
			SB	Meter	3	3	100%	3	100%	3	100%	3	100%	3	100%	3	100%
K	Baldwin St	Corliss Ave & Faatz Alley	NB	NP	0	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
			SB	Free	4	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
L	Baldwin St	Faatz Alley & Railroad Track	NB	NP	0	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
			SB	NP	0	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
M	Corliss Ave	Baldwin St & Arch St	EB	NP	0	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
			WB	Meter	15	4	27%	5	33%	7	47%	4	27%	5	33%	5	33%
N	Arch St	Main St & Corliss Ave	NB	Meter	23	0	0%	0	0%	3	13%	0	0%	3	13%	3	13%
			SB	Meter	24	4	17%	4	17%	5	21%	0	0%	3	13%	2	8%
O	Arch St	Corliss Ave & Faatz Alley	NB	NP	0	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
			SB	Meter	4	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
P	N Broad St	Main St & Corliss Ave	NB	OSA	0	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
			SB	Meter	14	3	21%	3	21%	4	29%	4	29%	6	43%	6	43%
Q	Corliss Ave	Arch St & N Broad St	EB	NP	0	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
			WB	NP	0	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
R	Corliss Ave	N Broad St & Willow St	EB	Free	11	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
			WB	OSA	0	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
S	Corliss Ave	Willow St & Jennison Ave	EB	Free	6	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
			WB	OSA	0	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
T	Corliss Ave	Jennison Ave & Ozalid Rd	EB	Free	15	0	0%	0	0%	0	0%	0	0%	0	0%	1	7%
			WB	OSA	0	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
Total					221	36	16%	38	17%	54	24%	42	19%	45	20%	45	20%

* The eastbound curb of Main Street between St Charles Street and Arch Street is a continuous "No Parking" zone.

OSA = Blockface located in Other Sub-Area

Bold Red = Utilization 90% or higher

NP = No Parking Zone

Bold Purple = Utilization greater than capacity

As **Tables 11** and **12** on the preceding pages show, occupancy of the Healthcare Sub-Area Off-Street Supply peaked at 1,669 vehicles at 1:00 PM on the surveyed weekday and 545 vehicles at 11:00 AM on the surveyed weekend day. Relative to the 2,612 parking spaces making up the Off-Street Supply in this sub-area, in aggregate only 64% of the supply was utilized at the peak hour on a weekday and 21% of the supply was utilized at the peak hour on a weekend.

The tables also illustrate facilities and times when utilization reached or exceeded supply during field observations. It is a commonly-accepted principle within parking research institutions that once an off-street parking facility is filled to 90% or more of its capacity, it is perceived as full by most drivers unless they are very familiar with the facility's use trends and patterns. The occasions highlighted in **bold red** within these tables note occasions when the occupancy within a particular facility exceeded 90% of its capacity, leading infrequent users such as patients, visitors, and customers to see the facility as full, even though there may still be a handful of empty spaces.

In the instances where occupancy and utilization are denoted in **bold purple** text, this means that there were more vehicles parked in a particular facility at a particular time than there were physical spaces. In these instances, some individuals may park in drive aisles, on grass verges, in areas marked as "no parking," in loading zones, etc. thereby 'creating' their own parking space within the facility.

In addition to looking at occupancy and utilization on an aggregate and facility-by-facility basis, DESMAN also assessed the use of parking supply dedicated to the sub-areas two largest users: United Health Services (UHS) and Binghamton University. DESMAN isolated the supply and occupancy in the collective Off-Street parking facilities dedicated to serving each of these institutions as shown in **Figure 4** on the following page. As the figure demonstrates, while some individual Off-Street facilities within the Healthcare Sub-Area may be highly or even overutilized, the total supply allocated to each institution within the Healthcare Sub-Area appears to be more than adequate under observed conditions.

As shown in **Tables 13** and **14** on the prior pages, there were some incidents of individual block faces within the Healthcare Area On-Street Supply parked near to or over capacity as shown in **bold red** and **purple** characters. However, like the Off-Street Supply, aggregate utilization across the On-Street Supply never approached total capacity. At the peak hour (1:00 PM) on a weekday (Thursday, 4/25) just 87 cars parked in 39% of the total On-Street Supply (221 spaces) within the Healthcare Sub-Area. At the peak hour (3:00 PM) on a weekend (Saturday, 4/27) there were just 45 vehicles to fill 20% of the total supply.

DESMAN also evaluated the relative occupancy and utilization of the Healthcare Sub-Area On-Street Supply by the type of space, comparing the supply with "Free" parking spaces and parking spaces with meters against the recorded occupancy of each. As **Figure 5** on the following page shows, at no time on the surveyed weekday or weekend did the 'free' or metered parking spaces become filled to even half of the respective capacities.

Figure 4: Observed Parking Occupancy Among Healthcare Sub-Area Institutions

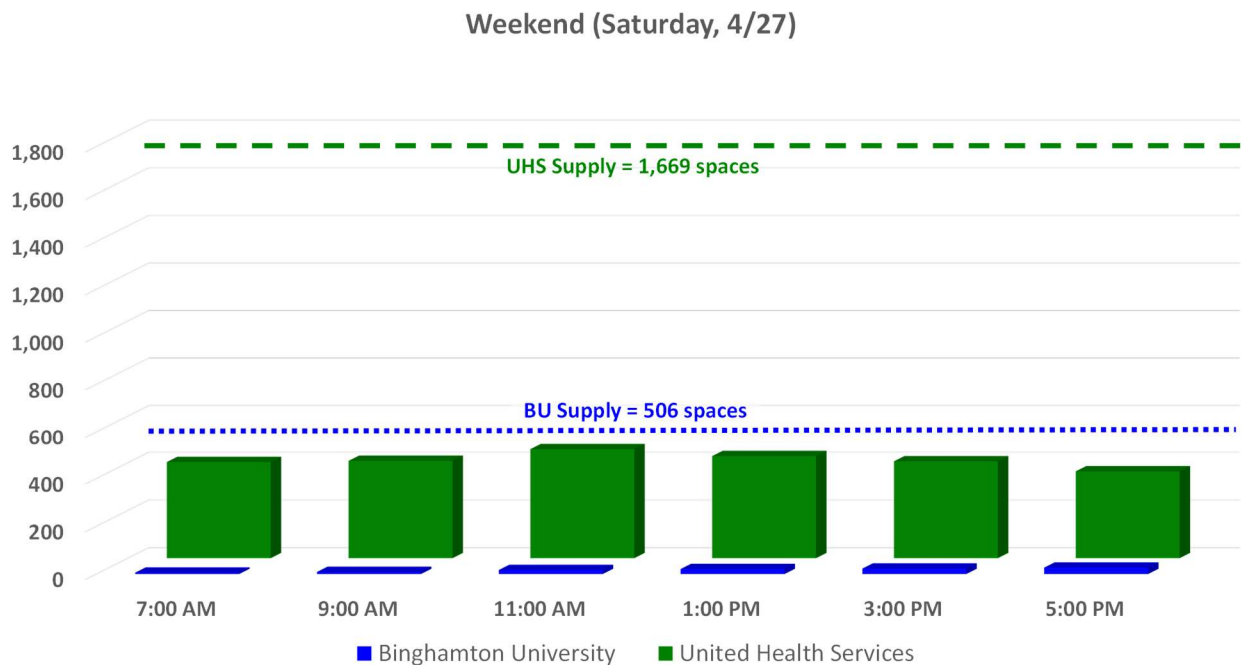
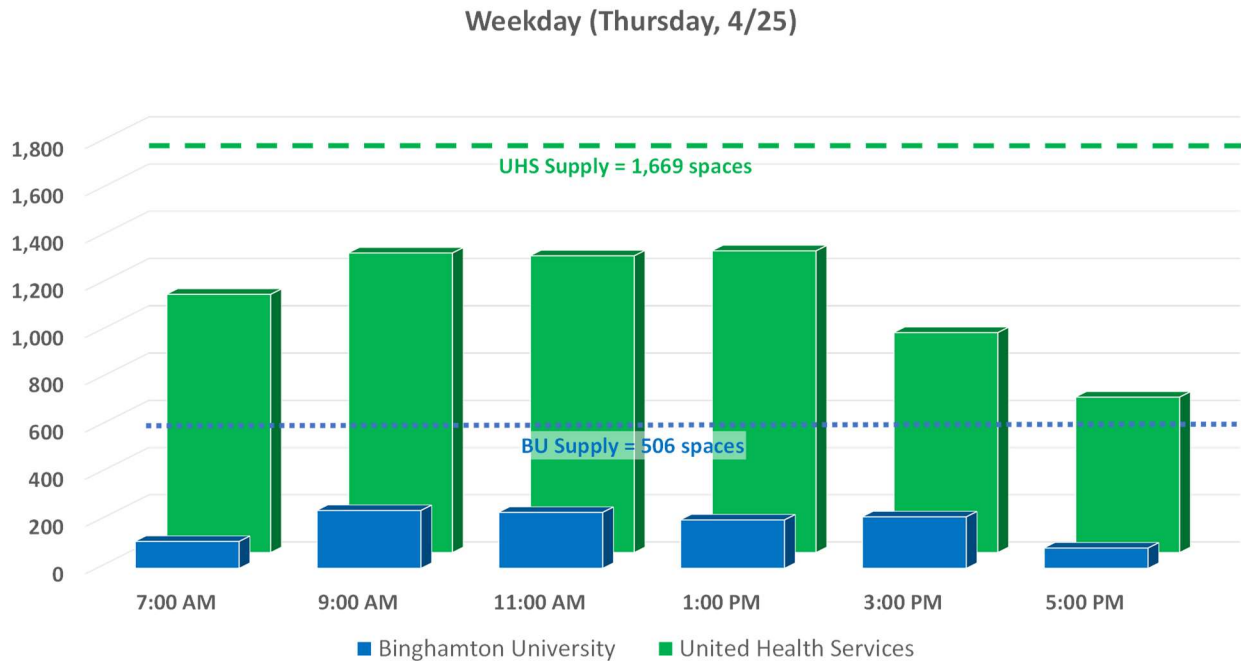
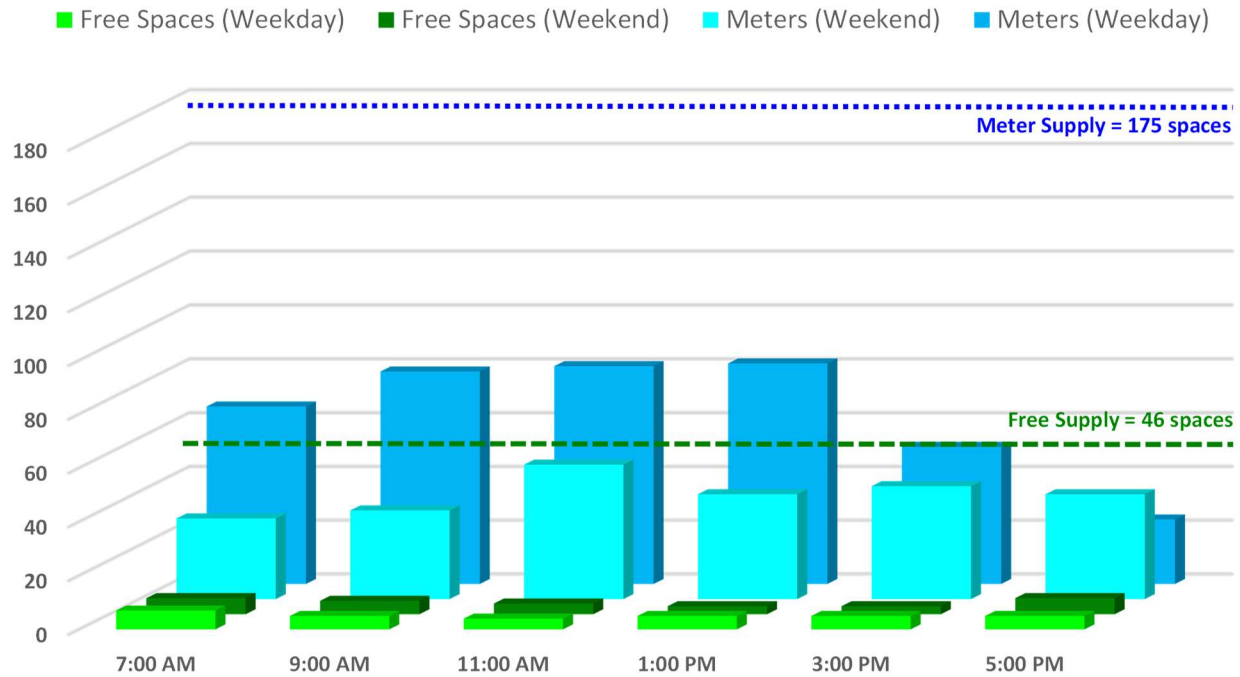


Figure 5: Healthcare Sub-Area Parking Occupancy for On-Street Meters and “Free” Spaces



In summary, and as shown in **Table 15**, the highest total occupancy across the sub-area was recorded at 9:00 AM on Thursday, April 25th, when 1,762 cars occupied 62% of the 2,833 spaces within the sub-area.

Table 15: Healthcare Sub-Area Total Parking Occupancy and Utilization

Type of Parking	Supply	Observed Parking Conditions, Thursday, 4/25											
		7:00 AM		9:00 AM		11:00 AM		1:00 PM		3:00 PM		5:00 PM	
		Occ	Util	Occ	Util	Occ	Util	Occ	Util	Occ	Util	Occ	Util
Off-Street	2,612	1,356	52%	1,678	64%	1,662	64%	1,669	64%	1,237	47%	810	31%
On-Street	221	73	33%	84	38%	85	38%	87	39%	56	25%	29	13%
TOTAL	2,833	1,429	50%	1,762	62%	1,747	62%	1,756	62%	1,293	46%	839	30%

Type of Parking	Supply	Observed Parking Conditions, Saturday, 4/27											
		7:00 AM		9:00 AM		11:00 AM		1:00 PM		3:00 PM		5:00 PM	
		Occ	Util	Occ	Util	Occ	Util	Occ	Util	Occ	Util	Occ	Util
Off-Street	2,612	489	19%	482	18%	545	21%	512	20%	497	19%	461	18%
On-Street	221	36	16%	38	17%	54	24%	42	19%	45	20%	45	20%
TOTAL	2,833	525	19%	520	18%	599	21%	554	20%	542	19%	506	18%

Downtown Sub-Area Occupancy and Adequacy

Due to mix of land uses within this sub-area, parking occupancy counts were executed every hour between 10:00 AM and 8:00 PM on Thursday, April 25th and Saturday, April 27th. The results of these exercises are presented as Tables **16**, **17**, **18**, and **19** on the following pages detailing observed conditions for the Off-Street Supply on the survey weekday (Thursday, 4/25) and weekend (Saturday, 4/27) as well observed conditions for the On-Street Supply for the same days.

Table 16: Downtown Sub-Area Off-Street Weekday Parking Occupancy and Utilization

ID	Facility Name	Ownership/ Access	Supply	Observed Parking Conditions, Thursday 4/25																					
				10:00 AM		11:00 AM		12:00 PM		1:00 PM		2:00 PM		3:00 PM		4:00 PM		5:00 PM		6:00 PM		7:00 PM		8:00 PM	
				Occ	Util	Occ	Util	Occ	Util	Occ	Util	Occ	Util	Occ	Util	Occ	Util	Occ	Util	Occ	Util	Occ	Util	Occ	Util
15	VJC - Isabelle Lot	Public/Public	58	11	19%	13	22%	15	26%	14	24%	12	21%	12	21%	13	22%	9	16%	8	14%	2	3%	2	3%
16	VJC - Municipal Lot	Public/Public	59	4	7%	4	7%	3	5%	4	7%	6	10%	3	5%	2	3%	2	3%	12	20%	14	24%	13	22%
17	VJC - Police Department Lot	Public/Private	24	16	67%	18	75%	13	54%	14	58%	15	63%	16	67%	7	29%	3	13%	3	13%	2	8%	2	8%
18A	VJC - Justice Lot	Public/Public	27	11	41%	5	19%	5	19%	4	15%	6	22%	4	15%	2	7%	2	7%	2	7%	2	7%	2	7%
18B	VJC - Main Street Lot	Public/Public	20	8	40%	10	50%	12	60%	8	40%	8	40%	9	45%	10	50%	4	20%	2	10%	1	5%	1	5%
50	VJC - Willow Lot	Public/Public	59	16	27%	19	32%	32	54%	41	69%	34	58%	37	63%	23	39%	18	31%	7	12%	4	7%	4	7%
52	Goodwill Theater lot	Private/Private	97	0	0%	0	0%	5	5%	11	11%	23	24%	25	26%	3	3%	3	3%	3	3%	2	2%	1	1%
60	14 Lewis Street Lot	Private/Private	22	1	5%	1	5%	1	5%	1	5%	1	5%	1	5%	1	5%	1	5%	1	5%	1	5%	0	0%
61	Guthrie JC Senior Care Lot	Private/Private	15	2	13%	1	7%	1	7%	1	7%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
62	Vitali Auto Exchange Lot	Private/Private	50	45	90%	44	88%	44	88%	44	88%	45	90%	45	90%	46	92%	46	92%	43	86%	45	90%	45	90%
63	215 Main Street Lot	Private/Private	45	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
64	190 Main St (Dental) Lot	Private/Private	4	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
65	M&T Bank Lot	Private/Private	58	8	14%	7	12%	9	16%	7	12%	8	14%	6	10%	5	9%	1	2%	1	2%	0	0%	0	0%
66	2 Jennison Ave Lot	Private/Private	58	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
67	JF Rice Funeral Home Lot	Private/Private	60	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
68	Old Mary Myers Salon Lot	Private/Private	31	2	6%	2	6%	2	6%	1	3%	3	10%	2	6%	1	3%	0	0%	0	0%	0	0%	0	0%
69	St. James Church Lot	Private/Private	69	3	4%	3	4%	4	6%	4	6%	4	6%	3	4%	4	6%	4	6%	2	3%	0	0%	0	0%
70	Knights of Columbus Lot	Private/Private	42	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
71	Victory Lofts Southwest Lot	Private/Private	73	11	15%	10	14%	9	12%	9	12%	10	14%	10	14%	12	16%	16	22%	20	27%	22	30%	16	22%
72	Dollar General	Private/Private	24	7	29%	9	38%	5	21%	7	29%	4	17%	5	21%	5	21%	4	17%	4	17%	4	17%	4	17%
73	Millers Body Shop	Private/Private	13	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
74	Victory Lofts Southeast Lot	Private/Private	30	7	23%	7	23%	7	23%	7	23%	8	27%	6	20%	4	13%	6	20%	7	23%	11	37%	11	37%
75	39 Laurel Street Lot	Private/Private	31	0	0%	2	6%	1	3%	1	3%	1	3%	1	3%	1	3%	1	3%	1	3%	3	10%	2	6%
76	NY Telephone Company Lot	Private/Private	12	1	8%	2	17%	3	25%	3	25%	2	17%	2	17%	1	8%	1	8%	1	8%	1	8%	1	8%
77	St. James Rectory Lot	Private/Private	18	8	44%	9	50%	9	50%	8	44%	8	44%	7	39%	3	17%	1	6%	1	6%	1	6%	0	0%
78	St. James School Lot	Private/Private	42	6	14%	6	14%	5	12%	6	14%	4	10%	3	7%	2	5%	3	7%	0	0%	1	2%	1	2%
88	Binghamton Realtor's Lot	Private/Private	18	4	22%	3	17%	1	6%	1	6%	2	11%	2	11%	1	6%	0	0%	0	0%	0	0%	0	0%
Total			1,059	171	16%	175	17%	186	18%	196	19%	204	19%	199	19%	146	14%	125	12%	118	11%	116	11%	105	10%

Bold Red = Utilization 90% or higher

Bold Purple = Utilization greater than capacity

Table 17: Downtown Sub-Area Off-Street Weekend Parking Occupancy and Utilization

ID	Facility Name	Ownership/ Access	Supply	Observed Parking Conditions, Saturday, 4/27																					
				10:00 AM		11:00 AM		12:00 PM		1:00 PM		2:00 PM		3:00 PM		4:00 PM		5:00 PM		6:00 PM		7:00 PM		8:00 PM	
				Occ	Util	Occ	Util	Occ	Util	Occ	Util	Occ	Util	Occ	Util	Occ	Util	Occ	Util	Occ	Util	Occ	Util	Occ	Util
15	VJC - Isabelle Lot	Public/Public	58	9	16%	14	24%	10	17%	12	21%	12	21%	13	22%	5	9%	3	5%	3	5%	1	2%	1	2%
16	VJC - Municipal Lot	Public/Public	59	11	19%	11	19%	8	14%	7	12%	7	12%	10	17%	7	12%	2	3%	2	3%	3	5%	3	5%
17	VJC - Police Department Lot	Public/Private	24	4	17%	4	17%	5	21%	4	17%	4	17%	4	17%	3	13%	3	13%	3	13%	4	17%	2	8%
18A	VJC - Justice Lot	Public/Public	27	1	4%	2	7%	4	15%	2	7%	2	7%	3	11%	2	7%	1	4%	1	4%	3	11%	3	11%
18B	VJC - Main Street Lot	Public/Public	20	2	10%	3	15%	3	15%	1	5%	0	0%	5	25%	4	20%	4	20%	3	15%	4	20%	4	20%
50	VJC - Willow Lot	Public/Public	59	39	66%	52	88%	24	41%	27	46%	55	93%	36	61%	28	47%	55	93%	18	31%	6	10%	4	7%
52	Goodwill Theater lot	Private/Private	97	1	1%	3	3%	0	0%	0	0%	3	3%	1	1%	2	2%	8	8%	0	0%	2	2%	0	0%
60	14 Lewis Street Lot	Private/Private	22	1	5%	1	5%	1	5%	1	5%	0	0%	1	5%	1	5%	0	0%	1	5%	1	5%	1	5%
61	Guthrie JC Senior Care Lot	Private/Private	15	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
62	Vitali Auto Exchange Lot	Private/Private	50	46	92%	46	92%	48	96%	45	90%	45	90%	45	90%	45	90%	45	90%	45	90%	45	90%	45	90%
63	215 Main Street Lot	Private/Private	45	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
64	190 Main St (Dental) Lot	Private/Private	4	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
65	M&T Bank Lot	Private/Private	58	0	0%	0	0%	0	0%	0	0%	0	0%	1	2%	0	0%	0	0%	0	0%	0	0%	0	0%
66	2 Jennison Ave Lot	Private/Private	58	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
67	JF Rice Funeral Home Lot	Private/Private	60	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	1	2%	0	0%	0	0%
68	Old Mary Myers Salon Lot	Private/Private	31	0	0%	1	3%	1	3%	0	0%	0	0%	0	0%	2	6%	0	0%	2	6%	0	0%	0	0%
69	St. James Church Lot	Private/Private	69	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	16	23%	8	12%	17	25%	0	0%	0	0%
70	Knights of Columbus Lot	Private/Private	42	0	0%	1	2%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
71	Victory Lofts Southwest Lot	Private/Private	73	20	27%	19	26%	16	22%	11	15%	12	16%	12	16%	12	16%	11	15%	15	21%	12	16%	7	10%
72	Dollar General	Private/Private	24	2	8%	5	21%	5	21%	5	21%	4	17%	4	17%	5	21%	2	8%	6	25%	2	8%	1	4%
73	Millers Body Shop	Private/Private	13	0	0%	1	8%	0	0%	0	0%	0	0%	1	8%	0	0%	0	0%	0	0%	0	0%	0	0%
74	Victory Lofts Southeast Lot	Private/Private	30	9	30%	9	30%	8	27%	12	40%	12	40%	12	40%	15	50%	12	40%	12	40%	13	43%	13	43%
75	39 Laurel Street Lot	Private/Private	31	4	13%	3	10%	2	6%	2	6%	2	6%	2	6%	3	10%	3	10%	3	10%	2	6%	1	3%
76	NY Telephone Company Lot	Private/Private	12	1	8%	1	8%	1	8%	1	8%	1	8%	1	8%	1	8%	1	8%	1	8%	1	8%	0	0%
77	St. James Rectory Lot	Private/Private	18	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	1	6%	0	0%	0	0%	0	0%	0	0%
78	St. James School Lot	Private/Private	42	0	0%	1	2%	1	2%	0	0%	0	0%	1	2%	42	100%	7	17%	4	10%	2	5%	1	2%
88	Binghamton Realtor's Lot	Private/Private	18	0	0%	0	0%	1	6%	1	6%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
Total			1,059	150	14%	177	17%	138	13%	131	12%	159	15%	152	14%	194	18%	165	16%	137	13%	101	10%	86	8%

Bold Red = Utilization 90% or higher

Bold Purple = Utilization greater than capacity

Table 18: Downtown Sub-Area On-Street Weekday Parking Occupancy and Utilization

ID	Street Name	Cross Street	POT	Type	Supply	Observed Parking Conditions, Thursday 4/25																							
						10:00 AM		11:00 AM		12:00 PM		1:00 PM		2:00 PM		3:00 PM		4:00 PM		5:00 PM		6:00 PM		7:00 PM		8:00 PM			
						Occ	Util	Occ	Util	Occ	Util	Occ	Util	Occ	Util	Occ	Util	Occ	Util	Occ	Util	Occ	Util	Occ	Util	Occ	Util		
A	Arch St	Main St & Railroad track	NB SB	NP OSA	0 0	0 0	0% 0%	0 0	0% 0%	0 0	0% 0%	0 0	0% 0%	0 0	0% 0%	0 0	0% 0%	0 0	0% 0%	0 0	0% 0%	0 0	0% 0%	0 0	0% 0%				
B	N Broad St	Main St & Railroad track	SB NB	NP Free	0 12	0 2	0% 17%	0 2	0% 17%	0 2	0% 17%	0 2	0% 17%	0 3	0% 25%	0 2	0% 17%	0 3	0% 25%	0 3	0% 25%	0 2	0% 17%	0 2	0% 17%				
C	Avenue D	Main St & Dead End	SB NB	NP Meter	0 5	0 2	0% 40%	0 2	0% 40%	0 1	0% 20%	0 3	0% 60%	0 2	0% 40%	0 2	0% 40%	0 1	0% 20%	0 1	0% 20%	0 2	0% 40%	0 2	0% 40%				
D	Avenue C	Main St & Helen Dr	SB NB	NP Meter	0 3	0 2	0% 67%	0 2	0% 67%	0 2	0% 67%	0 1	0% 33%	0 3	0% 100%	0 3	0% 100%	0 3	0% 100%	0 3	0% 100%	0 2	0% 67%	0 2	0% 67%				
E	Avenue B	Main St & Helen Dr	SB NB	Meter Meter	4 6	2 2	50% 33%	1 2	25% 33%	1 2	25% 33%	1 2	25% 33%	1 3	1 50%	1 1	1 17%	1 2	1 33%	0 2	0% 33%	2 0	50% 0%	3 0	75% 0%				
F	Avenue A	Main St & Helen Dr	SB NB	Meter Meter	10 7	2 3	20% 43%	1 1	10% 14%	2 2	20% 29%	2 2	20% 29%	1 1	10% 14%	2 1	20% 14%	1 1	10% 14%	1 1	10% 14%	1 1	10% 14%	1 2	10% 29%				
G	Lester Ave	Main St & Rail Line	NB SB	OSA NP	0 0	0 0	0% 0%	0 0	0% 0%	0 0	0% 0%	0 0	0% 0%	0 0	0% 0%	0 0	0% 0%	0 0	0% 0%	0 0	0% 0%	0 0	0% 0%	0 0	0% 0%				
H	Main St	Arch St & N Broad St	EB WB	OSA Meter	0 3	0 1	0% 33%	0 2	0% 67%	0 2	0% 67%	0 1	0% 33%	0 3	0% 100%	0 3	0% 100%	0 1	0% 33%	0 2	0% 67%	0 2	0% 33%	0 4	0% 40%				
I	Main St	N Broad St & Avenue C	EB WB	Meter Meter	10 9	4 5	40% 56%	3 5	30% 56%	1 5	10% 56%	5 5	50% 56%	8 6	80% 67%	0 4	0% 44%	1 5	10% 56%	0 3	0% 33%	2 5	20% 56%	4 7	40% 78%				
J	Main St	Avenue C & Avenue B	EB WB	Meter Meter	7 10	2 0	29% 0%	5 5	71% 50%	1 8	14% 80%	2 6	29% 60%	0 5	0% 50%	2 5	29% 50%	1 4	14% 30%	3 3	43% 30%	2 6	29% 60%	2 4	29% 40%				
K	Main St	Avenue B & Avenue A	EB WB	Meter Meter	4 6	0 1	0% 17%	1 2	25% 33%	0 3	0% 50%	1 0	25% 0%	2 0	50% 0%	0 0	0% 0%	1 0	25% 0%	0 0	0% 0%	0 0	0% 0%	0 0	0% 0%				
L	Main St	Avenue A & Lester Ave	EB WB	NP NP	0 0	0 0	0% 0%	0 0	0% 0%	0 0	0% 0%	0 0	0% 0%	0 0	0% 0%	0 0	0% 0%	0 0	0% 0%	0 0	0% 0%	0 0	0% 0%	0 0	0% 0%				
M	Helen Dr	Avenue B & Lester Ave	EB WB	NP NP	0 0	0 0	0% 0%	0 0	0% 0%	0 0	0% 0%	0 0	0% 0%	0 0	0% 0%	0 0	0% 0%	0 0	0% 0%	0 0	0% 0%	0 0	0% 0%	0 0	0% 0%				
N	Laurel St	Avenue A & Lester Ave	EB WB	Free Free	12 6	3 3	25% 50%	1 2	8% 33%	1 3	8% 50%	0 2	0% 33%	0 3	0% 50%	1 2	8% 33%	2 2	17% 33%	3 2	25% 33%	1 1	8% 17%	1 2	8% 33%				
P	N Broad St	Main St & Corliss Ave	SB NB	OSA Meter	0 12	0 2	0% 17%	0 2	0% 17%	0 2	0% 17%	0 2	0% 17%	0 3	0% 25%	0 2	0% 17%	0 3	0% 25%	0 3	0% 25%	0 3	0% 25%	0 2	0% 17%				
Q	Willow St	Main St & Corliss Ave	SB NB	Meter NP	6 0	0 0	0% 0%	2 0	33% 0%	1 0	17% 0%	1 0	17% 0%	0 0	0% 0%	1 0	17% 0%	1 0	17% 0%	3 0	50% 0%	3 0	50% 0%	1 0	17% 0%				
R	Jennison Ave	Main St & Corliss Ave	SB NB	Meter Meter	3 7	0 0	0% 0%	0 0	0% 0%	0 1	0% 14%	0 2	0% 29%	0 0	0% 0%	0 0	0% 0%	0 1	0% 14%	0 0	0% 0%	0 0	0% 0%	0 0	0% 0%				
S	Ozalid Rd	Corliss Ave & Main St	SB NB	NP NP	0 0	0 0	0% 0%	0 0	0% 0%	0 0	0% 0%	0 0	0% 0%	0 0	0% 0%	0 0	0% 0%	0 0	0% 0%	0 0	0% 0%	0 0	0% 0%	0 0	0% 0%				
T	Park St	Main St & Dead End	SB NB	NP Free	0 11	0 2	0% 18%	0 2	0% 18%	0 2	0% 18%	0 2	0% 18%	0 2	0% 18%	0 2	0% 18%	0 2	0% 18%	0 2	0% 18%	0 2	0% 18%	0 2	0% 18%				
U	Lewis St	Willow St & Jennison Ave	EB WB	Free NP	25 0	0 0	0% 0%	0 0	0% 0%	0 0	0% 0%	0 0	0% 0%	0 0	0% 0%	1 0	4% 0%	2 0	8% 0%	3 0	12% 0%	4 0	16% 0%	5 0	20% 0%				
V	Corliss Ave	N Broad St & Willow St	EB WB	OSA NP	0 0	0 0	0% 0%	0 0	0% 0%	0 0	0% 0%	0 0	0% 0%	0 0	0% 0%	0 0	0% 0%	0 0	0% 0%	0 0	0% 0%	0 0	0% 0%	0 0	0% 0%				
W	Corliss Ave	Willow St & Jennison Ave	EB WB	OSA Free	0 10	0 2	0% 20%	0 6	0% 60%	0 5	0% 50%	0 2	0% 20%	0 1	0% 10%	0 1	0% 10%	0 0	0% 0%	0 0	0% 0%	0 0	0% 0%	0 0	0% 0%				
X	Corliss Ave	Jennison Ave & Ozalid Rd	EB WB	OSA NP	0 0	0 0	0% 0%	0 0	0% 0%	0 0	0% 0%	0 0	0% 0%	0 0	0% 0%	0 0	0% 0%	0 0	0% 0%	0 0	0% 0%	0 0	0% 0%	0 0	0% 0%				
Total					188	40	21%	49	26%	47	25%	44	23%	47	25%	36	19%	41	22%	37	20%	41	22%	42	22%				

OSA = Blockface located in Other Sub-Area

NP = No Parking Zone

Bold Red = Utilization 90% or higher

Table 19: Downtown Sub-Area Off-Street Weekend Parking Occupancy and Utilization

ID	Street Name	Cross Street	POT	Type	Supply	Observed Parking Conditions, Saturday, 4/27																							
						10:00 AM		11:00 AM		12:00 PM		1:00 PM		2:00 PM		3:00 PM		4:00 PM		5:00 PM		6:00 PM		7:00 PM		8:00 PM			
						Occ	Util	Occ	Util	Occ	Util	Occ	Util	Occ	Util	Occ	Util	Occ	Util	Occ	Util	Occ	Util	Occ	Util	Occ	Util		
A	Arch St	Main St & Railroad track	NB	NP	0	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%				
			SB	OSA	0	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%				
B	N Broad St	Main St & Railroad track	SB	NP	0	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%				
			NB	Free	12	2	17%	3	25%	3	25%	5	42%	7	58%	7	58%	5	42%	3	25%	2	17%	2	17%				
C	Avenue D	Main St & Dead End	SB	NP	0	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%				
			NB	Meter	5	1	20%	2	40%	3	60%	4	80%	4	80%	4	80%	4	80%	1	20%	1	20%	1	20%				
D	Avenue C	Main St & Helen Dr	SB	NP	0	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%				
			NB	Meter	3	1	33%	2	67%	2	67%	2	67%	3	100%	3	100%	3	100%	3	100%	3	100%	2	67%				
E	Avenue B	Main St & Helen Dr	SB	Meter	4	0	0%	1	25%	1	25%	2	50%	3	75%	3	75%	3	75%	3	75%	3	75%	3	75%				
			NB	Meter	6	0	0%	1	17%	1	17%	2	33%	2	33%	2	33%	1	17%	2	33%	1	17%	2	33%				
F	Avenue A	Main St & Helen Dr	SB	Meter	10	1	10%	3	30%	3	30%	2	20%	2	20%	2	20%	3	30%	3	30%	3	30%	3	30%				
			NB	Meter	7	0	0%	2	29%	5	71%	1	14%	0	0%	2	29%	2	29%	2	29%	0	0%	0	0%				
G	Lester Ave	Main St & Rail Line	NB	OSA	0	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%				
			SB	NP	0	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%				
H	Main St	Arch St & N Broad St	EB	OSA	0	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%				
			WB	Meter	3	1	33%	3	100%	3	100%	2	67%	3	100%	3	100%	3	100%	2	67%	0	0%	2	67%				
I	Main St	N Broad St & Avenue C	EB	Meter	10	1	10%	1	10%	1	10%	0	0%	6	60%	6	60%	2	20%	2	20%	3	30%	0	0%				
			WB	Meter	9	2	22%	4	44%	7	78%	8	89%	9	100%	9	100%	6	67%	6	67%	7	78%	5	56%				
J	Main St	Avenue C & Avenue B	EB	Meter	7	2	29%	4	57%	4	57%	2	29%	2	29%	3	43%	2	29%	1	14%	0	0%	1	14%				
			WB	Meter	10	2	20%	7	70%	8	80%	3	30%	2	20%	2	20%	4	40%	3	30%	3	30%	7	70%				
K	Main St	Avenue B & Avenue A	EB	Meter	4	0	0%	0	0%	0	0%	1	25%	1	25%	1	25%	1	25%	0	0%	0	0%	0	0%				
			WB	Meter	6	0	0%	0	0%	1	17%	1	17%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%				
L	Main St	Avenue A & Lester Ave	EB	NP	0	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%				
			WB	NP	0	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%				
M	Helen Dr	Avenue B & Lester Ave	EB	NP	0	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%				
			WB	NP	0	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%				
N	Laurel St	Avenue A & Lester Ave	EB	Free	12	0	0%	2	17%	2	17%	0	0%	0	0%	1	8%	2	17%	0	0%	0	0%	0	0%				
			WB	Free	6	2	33%	3	50%	3	50%	3	50%	3	50%	3	50%	3	50%	2	33%	2	33%	3	50%				
P	N Broad St	Main St & Corliss Ave	SB	OSA	0	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%				
			NB	Meter	12	2	17%	3	25%	3	25%	5	42%	7	58%	7	58%	5	42%	3	25%	2	17%	2	17%				
Q	Willow St	Main St & Corliss Ave	SB	Meter	6	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	2	33%	2	33%				
			NB	NP	0	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%				
R	Jennison Ave	Main St & Corliss Ave	SB	Meter	3	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%				
			NB	Meter	7	1	14%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%				
S	Ozalid Rd	Corliss Ave & Main St	SB	NP	0	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%				
			NB	NP	0	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%				
T	Park St	Main St & Dead End	SB	NP	0	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%				
			NB	Free	11	2	18%	2	18%	2	18%	2	18%	2	18%	2	18%	2	18%	2	18%	2	18%	2	18%				
U	Lewis St	Willow St & Jennison Ave	EB	Free	25	0	0%	1	4%	2	8%	2	8%	4	16%	5	20%	7	28%	7	28%	6	24%	5	20%				
			WB	NP	0	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%				
V	Corliss Ave	N Broad St & Willow St	EB	OSA	0	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%				
			WB	NP	0	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%				
W	Corliss Ave	Willow St & Jennison Ave	EB	OSA	0	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%				
			WB	Free	10	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%				
X	Corliss Ave	Jennison Ave & Ozalid Rd	EB	OSA	0	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%				
			WB	NP	0	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%				
Total					188	20	11%	44	23%	54	29%	47	25%	60	32%	65	35%	58	31%	48	26%	42	22%	42	22%				

OSA = Blockface located in Other Sub-Area

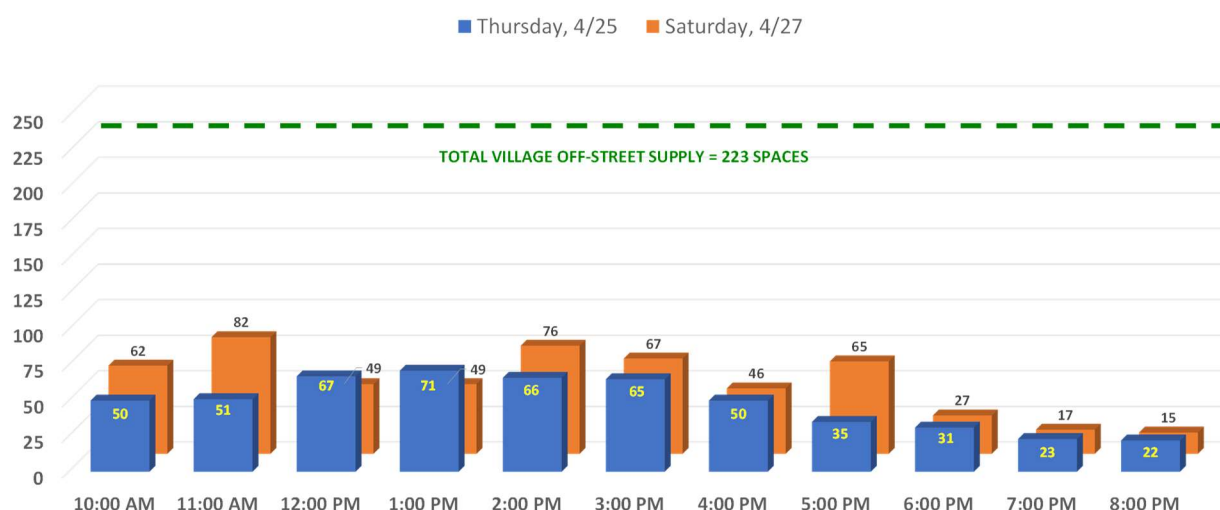
NP = No Parking Zone

Bold Red = Utilization 90% or higher

As **Tables 16** and **17** on the preceding pages show, occupancy of the Downtown Sub-Area Off-Street Supply peaked at 204 vehicles at 2:00 PM on the surveyed weekday and 194 vehicles at 4:00 PM on the surveyed weekend day. Relative to the 1,059 parking spaces making up the Off-Street Supply in this sub-area, this meant that in aggregate only 19% of the off-street supply was utilized at the peak hour on a weekday and 18% of the off-street supply was utilized at the peak hour on a weekend. DESMAN noted only one Off-Street facility which experienced utilization above 90% on a weekday and two on the weekend. No facility appeared to be parked over its capacity at any time.

Within the Downtown Sub-Area are located the Village's primary public parking lots², which make up the bulk of the Public/Public Off-Street Supply across the entire study area. DESMAN evaluated the utilization of these five lots as a collective, containing a total of 223 spaces as shown in **Figure 6**. While the Willow Street lot did experience a high degree of utilization during weekend afternoon observations (see **Table 17**), each facility has a significant portion of its capacity available during field observations.

Figure 6: Downtown Sub-Area Village Parking Lots Occupancy Observations



As shown in **Tables 18** and **19** on the prior pages, there were some isolated incidents of individual block faces within the Downtown Area On-Street Supply parked near to or over capacity as shown in bold red characters. However, like the Off-Street Supply, aggregate utilization across the On-Street Supply never approached total capacity. At the peak hour (12:00 PM) on a weekday (Thursday, 4/25) just 47 cars parked in 23% of the total On-Street Supply (188 spaces) within the Downtown Sub-Area. At the peak hour (3:00 PM) on a weekend (Saturday, 4/27) there were just 65 vehicles to fill 35% of the total supply.

In summary, and as shown in **Table 20** on the next page, the highest total occupancy across the sub-area was recorded at 2:00 PM on Thursday, April 25th, when 251 cars occupied 20% of the 1,247 spaces within the sub-area.

² The 58-space Isabelle Lot, the 59-space Municipal Lot, the 27-space Justice Lot, the 20-space Main Street Lot, and the 59-space Willow Lot.

Table 20: Downtown Sub-Area Total Parking Occupancy and Utilization

Type of Parking	Supply	Observed Parking Conditions, Thursday 4/25																					
		10:00 AM		11:00 AM		12:00 PM		1:00 PM		2:00 PM		3:00 PM		4:00 PM		5:00 PM		6:00 PM		7:00 PM		8:00 PM	
		Occ	Util	Occ	Util	Occ	Util	Occ	Util	Occ	Util	Occ	Util	Occ	Util	Occ	Util	Occ	Util	Occ	Util	Occ	Util
Off-Street	1,059	171	16%	175	17%	186	18%	196	19%	204	19%	199	19%	146	14%	125	12%	118	11%	116	11%	105	10%
On-Street	188	40	21%	49	26%	47	25%	44	23%	47	25%	36	19%	41	22%	37	20%	41	22%	42	22%	32	17%
TOTAL	1,247	211	17%	224	18%	233	19%	240	19%	251	20%	235	19%	187	15%	162	13%	159	13%	158	13%	137	11%

Type of Parking	Supply	Observed Parking Conditions, Saturday, 4/27																							
		10:00 AM		11:00 AM		12:00 PM		1:00 PM		2:00 PM		3:00 PM		4:00 PM		5:00 PM		6:00 PM		7:00 PM		8:00 PM			
		Occ	Util	Occ	Util	Occ	Util	Occ	Util	Occ	Util	Occ	Util	Occ	Util	Occ	Util	Occ	Util	Occ	Util	Occ	Util		
Off-Street	1,059	150	14%	177	17%	138	13%	131	12%	159	15%	152	14%	194	18%	165	16%	137	13%	101	10%	86	8%		
On-Street	188	20	11%	44	23%	54	29%	47	25%	60	32%	65	35%	58	31%	48	26%	42	22%	42	22%	25	13%		
TOTAL	1,247	170	14%	221	18%	192	15%	178	14%	219	18%	217	17%	252	20%	213	17%	179	14%	143	11%	111	9%		

Length of Stay and Turnover Observations

In addition to occupancy counts, DESMAN also performed license plate inventories across the Downtown Sub-Area for all on- and off-street parking facilities. Within these inventories, DESMAN recorded the license plate of each vehicle parked in each on- and off-street parking spaces within the sub-area at the top of each hour. This data was then analyzed to provide DESMAN with an understanding for how long parkers typically stayed during the survey days, how often parking spaces turned over, and an estimate of how many drivers exceeded posted maximum time limits, if any.

Detailed accounting of this work is included in the tables on the following pages. Major conclusions from this work include the following:

- I. On the surveyed weekday (Thursday, 4/25), a total of 506 vehicles parked in the 1,059 off-street parking spaces in the Downtown Sub-Area, creating an average turnover rate of 0.48 vehicles per space. These 506 vehicles parked for a total of 1,735 hours, rendering an average length of stay of 3.43 hours per parked vehicle on the survey day.
- II. On the surveyed weekday, a total of 246 vehicles parked in the 247 off-street parking spaces in the Village's six public parking lots within the Downtown Sub-Area, creating an average turnover rate of ~ 1.00 vehicles per space. These 246 vehicles parked for a total of 640 hours, rendering an average length of stay of 2.60 hours per parked vehicle on the survey day.
 - a. The 59-space Willow Lot had 103 vehicles parked in it during the course of the day for a total of 235 hours, creating a turnover rate of 1.75 vehicles per space and typical length of stay of 2.28 hours per vehicle.
- III. On the surveyed weekend day (Saturday, 4/27), a total of 591 vehicles parked in the 1,059 off-street parking spaces in the Downtown Sub-Area, creating an average turnover rate of 0.56 vehicles per space. These 591 vehicles parked for a total of 1,588 hours, rendering an average length of stay of 2.69 hours per parked vehicle on the survey day.
- IV. On the surveyed weekend day, a total of 296 vehicles parked in the 247 off-street parking spaces in the Village's six public parking lots within the Downtown Sub-Area, creating an average turnover rate of ~ 1.20 vehicles per space. These 296 vehicles parked for a total of 595 hours, rendering an average length of stay of 2.00 hours per parked vehicle on the survey day.
 - a. The 59-space Willow Lot had 180 vehicles parked in it during the course of the day for a total of 344 hours, creating a turnover rate of 3.05 vehicles per space and typical length of stay of 1.91 hours per vehicle.
- V. On the surveyed weekday (Thursday, 4/25), a total of 218 vehicles parked in the 156 on-street parking spaces in the Downtown Sub-Area, creating an average turnover rate of 1.40 vehicles per space. These 218 vehicles parked for a total of 404 hours, rendering an average length of stay of 1.85 hours per parked vehicle on the survey day.
 - a. Roughly 4% of all observed on-street drivers (8 out of 218) parked in excess of six hours.
 - b. Main Street between Arch Street and Avenue A contains 52 metered parking spaces that parked a total of 145 vehicles on the survey day for 195 hours for a typical turnover rate of 2.79 vehicles per space and an average length of stay 1.34 hours per vehicle.

- c. There are 102 metered parking spaces across the sub-area which supported 178 parked vehicles during the course of the survey day staying for a total of 316 hours, resulting in an average turnover rate of 1.75 vehicles per space and an average length of stay of 1.78 hours per driver. Only 4% of all surveyed drivers stayed for 6 hours or more in these spaces.
 - d. There are 54 'free' parking spaces across the sub-area which supported 40 parked vehicles during the course of the survey day staying for a total of 88 hours, resulting in an average turnover rate of 0.74 vehicles per space and an average length of stay of 2.20 hours per parker. Only 3% of all surveyed drivers stayed for 6 hours or more in these spaces.
- VI. On the surveyed weekend day (Saturday, 4/27), a total of 128 vehicles parked in the 156 on-street parking spaces in the Downtown Sub-Area, creating an average turnover rate of 0.82 vehicles per space. These 128 vehicles parked for a total of 427 hours, rendering an average length of stay of 3.34 hours per parked vehicle on the survey day.
 - a. Roughly 13% of all observed on-street parkers (17 out of 156) parked in excess of six hours.
 - b. Main Street between Arch Street and Avenue A contains 52 metered parking spaces that parked a total of 74 vehicles on the survey day for 199 hours for a typical turnover rate of 1.42 vehicles per space and an average length of stay 2.69 hours per vehicle.
 - c. There are 102 metered parking spaces across the sub-area which supported 111 parked vehicles during the course of the survey day staying for a total of 347 hours, resulting in an average turnover rate of 1.09 vehicles per space and an average length of stay of 3.13 hours per driver. 11% of all surveyed drivers stayed for 6 hours or more in these spaces.
 - d. There are 54 'free' parking spaces across the sub-area which supported 17 parked vehicles during the course of the survey day staying for a total of 80 hours, resulting in an average turnover rate of 0.31 vehicles per space and an average length of stay of 4.71 hours per driver. 29% of all surveyed drivers stayed for 6 hours or more in these spaces.

Table 21: Weekday (Thursday, 4/25) Length of Stay and Turnover Observations Across Off-Street Parking Facilities in the Downtown Sub-Area

ID	Facility Name	Ownership/ Access	Supply	Thursday, 4/25												Total Cars/ Day	Avg Turn- over	Total Hours Parked	Average Length of Stay (Hrs)
				Observed Length of Stay															
				1-Hr	2-Hr	3-Hr	4-Hr	5-Hr	6-Hr	7-Hr	8-Hr	9-Hr	10-Hr	11-Hr					
15	VJC - Isabelle Lot	Public/Public	58	15	5	3	2	3	1	1	4	1	-	-	35	0.60	111	3.17	
16	VJC - Municipal Lot	Public/Public	59	10	5	9	1	1	-	-	-	-	-	1	27	0.46	67	2.48	
17	VJC - Police Department Lot	Public/Private	24	17	7	7	2	1	6	-	1	-	-	-	41	1.71	109	2.66	
18A	VJC - Justice Lot	Public/Public	27	15	3	1	1	-	1	-	-	-	-	1	22	0.81	45	2.05	
18B	VJC - Main Street Lot	Public/Public	20	4	2	5	1	-	1	3	1	-	-	1	18	0.90	73	4.06	
50	VJC - Willow Lot	Public/Public	59	26	45	16	11	4	-	1	-	-	-	-	103	1.75	235	2.28	
52	Goodwill Theater lot	Private/Private	97	19	24	3	-	-	-	-	-	-	-	-	46	0.47	76	1.65	
60	14 Lewis Street Lot	Private/Private	22	1	1	1	1	-	-	-	-	-	-	-	4	0.18	10	2.50	
61	Guthrie JC Senior Care Lot	Private/Private	15	2	-	1	-	-	-	-	-	-	-	-	3	0.20	5	1.67	
62	Vitali Auto Exchange Lot	Private/Private	50	3	2	-	-	1	1	1	2	-	-	41	51	1.02	492	9.65	
63	215 Main Street Lot	Private/Private	45	-	-	-	-	-	-	-	-	-	-	-	-	0.00	-	0.00	
64	190 Main St (Dental) Lot	Private/Private	4	-	-	-	-	-	-	-	-	-	-	-	-	0.00	-	0.00	
65	M&T Bank Lot	Private/Private	58	16	-	1	-	1	-	4	-	-	-	-	22	0.38	52	2.36	
66	2 Jennison Ave Lot	Private/Private	58	-	-	-	-	-	-	-	-	-	-	-	-	0.00	-	0.00	
67	JF Rice Funeral Home Lot	Private/Private	60	-	-	-	-	-	-	-	-	-	-	-	-	0.00	-	0.00	
68	Old Mary Myers Salon Lot	Private/Private	31	2	2	1	1	-	-	-	-	-	-	-	6	0.19	13	2.17	
69	St. James Church Lot	Private/Private	69	3	-	1	-	-	-	1	-	2	-	-	7	0.10	31	4.43	
70	Knights of Columbus Lot	Private/Private	42	-	-	-	-	-	-	-	-	-	-	-	-	0.00	-	0.00	
71	Victory Lofts Southwest Lot	Private/Private	73	2	5	8	6	1	1	-	-	-	3	4	30	0.41	145	4.83	
72	Dollar General	Private/Private	24	16	7	-	1	1	2	1	-	-	-	-	28	1.17	58	2.07	
73	Millers Body Shop	Private/Private	13	-	-	-	-	-	-	-	-	-	-	-	-	0.00	-	0.00	
74	Victory Lofts Southeast Lot	Private/Private	30	4	6	1	3	1	2	-	-	-	-	3	20	0.67	81	4.05	
75	39 Laurel Street Lot	Private/Private	31	3	1	1	-	-	1	-	-	-	-	-	6	0.19	14	2.33	
76	NY Telephone Company Lot	Private/Private	12	-	-	1	1	-	-	-	-	-	-	1	3	0.25	18	6.00	
77	St. James Rectory Lot	Private/Private	18	-	3	4	-	-	5	1	-	-	-	-	13	0.72	55	4.23	
78	St. James School Lot	Private/Private	42	8	5	-	2	1	1	-	-	-	-	-	17	0.40	37	2.18	
88	Binghamton Realtor's Lot	Private/Private	18	1	2	1	-	-	-	-	-	-	-	-	4	0.22	8	2.00	
Total			1,059	167	125	65	33	15	22	13	8	3	3	52	506	0.48	1,735	3.43	

Table 22: Weekend (Saturday, 4/27) Length of Stay and Turnover Observations Across Off-Street Parking Facilities in the Downtown Sub-Area

ID	Facility Name	Ownership/ Access	Supply	Saturday, 4/27											Total Cars/ Day	Avg Turn- over	Total Hours Parked	Average Length of Stay (Hrs)
				Observed Length of Stay														
				1-Hr	2-Hr	3-Hr	4-Hr	5-Hr	6-Hr	7-Hr	8-Hr	9-Hr	10-Hr	11-Hr				
15	VJC - Isabelle Lot	Public/Public	58	13	14	5	3	3	-	-	-	-	-	-	38	0.66	83	2.18
16	VJC - Municipal Lot	Public/Public	59	13	15	1	5	1	-	-	-	-	-	-	35	0.59	71	2.03
17	VJC - Police Department Lot	Public/Private	24	3	10	3	2	-	-	-	-	-	-	-	18	0.75	40	2.22
18A	VJC - Justice Lot	Public/Public	27	4	3	3	-	1	-	-	-	-	-	-	11	0.41	24	2.18
18B	VJC - Main Street Lot	Public/Public	20	4	4	3	3	-	-	-	-	-	-	-	14	0.70	33	2.36
50	VJC - Willow Lot	Public/Public	59	72	62	36	10	-	-	-	-	-	-	-	180	3.05	344	1.91
52	Goodwill Theater lot	Private/Private	97	16	2	-	-	-	-	-	-	-	-	-	18	0.19	20	1.11
60	14 Lewis Street Lot	Private/Private	22	2	2	1	-	-	-	-	-	-	-	-	5	0.23	9	1.80
61	Guthrie JC Senior Care Lot	Private/Private	15	-	-	-	-	-	-	-	-	-	-	-	-	0.00	-	0.00
62	Vitali Auto Exchange Lot	Private/Private	50	5	-	-	-	-	-	-	-	-	-	45	50	1.00	500	10.00
63	215 Main Street Lot	Private/Private	45	-	-	-	-	-	-	-	-	-	-	-	-	0.00	-	0.00
64	190 Main St (Dental) Lot	Private/Private	4	-	-	-	-	-	-	-	-	-	-	-	-	0.00	-	0.00
65	M&T Bank Lot	Private/Private	58	1	-	-	-	-	-	-	-	-	-	-	1	0.02	1	1.00
66	2 Jennison Ave Lot	Private/Private	58	-	-	-	-	-	-	-	-	-	-	-	-	0.00	-	0.00
67	JF Rice Funeral Home Lot	Private/Private	60	1	-	-	-	-	-	-	-	-	-	-	1	0.02	1	0.00
68	Old Mary Myers Salon Lot	Private/Private	31	4	1	-	-	-	-	-	-	-	-	-	5	0.16	6	1.20
69	St. James Church Lot	Private/Private	69	25	8	-	-	-	-	-	-	-	-	-	33	0.48	41	1.24
70	Knights of Columbus Lot	Private/Private	42	1	-	-	-	-	-	-	-	-	-	-	1	0.02	1	0.00
71	Victory Lofts Southwest Lot	Private/Private	73	9	10	22	13	-	-	-	-	-	-	-	54	0.74	147	2.72
72	Dollar General	Private/Private	24	9	9	2	2	-	-	-	-	-	-	-	22	0.92	41	1.86
73	Millers Body Shop	Private/Private	13	2	-	-	-	-	-	-	-	-	-	-	2	0.15	2	0.00
74	Victory Lofts Southeast Lot	Private/Private	30	5	13	5	14	5	-	-	-	-	-	-	42	1.40	127	3.02
75	39 Laurel Street Lot	Private/Private	31	1	5	1	2	1	-	-	-	-	-	-	10	0.32	27	2.70
76	NY Telephone Company Lot	Private/Private	12	-	1	-	2	-	-	-	-	-	-	-	3	0.25	10	3.33
77	St. James Rectory Lot	Private/Private	18	1	-	-	-	-	-	-	-	-	-	-	1	0.06	1	1.00
78	St. James School Lot	Private/Private	42	37	8	2	-	-	-	-	-	-	-	-	47	1.12	59	1.26
88	Binghamton Realtor's Lot	Private/Private	18	-	-	-	-	-	-	-	-	-	-	-	-	0.00	-	0.00
Total			1,059	228	167	84	56	11	-	-	-	-	-	45	591	0.56	1,588	2.69

Table 23: Weekday (Thursday, 4/25) Length of Stay and Turnover Observations Across On-Street Parking Facilities in the Downtown Sub-Area

Street Name	Cross Streets	POT	Type	Supply	Utilization		Thursday, 4/25											Total Cars/Day	Avg Turn-over	Time Violation Rate	Total Hours Parked	Average Length of Stay (Hrs)
							Observed Length of Stay															
					Avg	Peak	1-Hr	2-Hr	3-Hr	4-Hr	5-Hr	6-Hr	7-Hr	8-Hr	9-Hr	10-Hr	11-Hr					
Main Street	Arch St & N Broad St	EB	Metered	3	27%	100%	6	-	1	-	-	-	-	-	-	-	7	2.33	-	9	1.29	
Main Street	Arch St & N Broad St	WB	Metered	3	55%	100%	12	3	-	-	-	-	-	-	-	-	15	5.00	-	18	1.20	
N. Broad Street	Main St & Railroad Track	NB	Metered	12	20%	25%	1	-	-	-	1	-	-	-	1	-	4	0.33	50%	26	6.50	
Avenue D	Main St & Dead End	NB	Metered	5	36%	60%	2	3	-	1	-	-	-	1	-	-	7	1.40	14%	20	2.86	
Main Street	Avenue D & Avenue C	EB	Metered	10	28%	80%	18	5	1	-	-	-	-	-	-	-	24	2.40	-	31	1.29	
Main Street	Avenue D & Avenue C	WB	Metered	9	56%	78%	21	9	2	-	2	-	-	-	-	-	34	3.78	-	55	1.62	
Avenue C	Main St & Avenue B	NB	Metered	3	73%	100%	-	-	2	1	-	1	-	1	-	-	5	1.67	20%	24	4.80	
Main Street	Avenue C & Avenue B	EB	Metered	7	27%	71%	18	-	1	-	-	-	-	-	-	-	19	2.71	-	21	1.11	
Main Street	Avenue C & Avenue B	WB	Metered	10	45%	80%	26	6	4	-	-	-	-	-	-	-	36	3.60	-	50	1.39	
Main Street	Avenue B & Avenue A	EB	Metered	4	11%	50%	5	-	-	-	-	-	-	-	-	-	5	1.25	-	5	1.00	
Main Street	Avenue B & Avenue A	WB	Metered	6	90%	50%	4	1	-	-	-	-	-	-	-	-	5	0.83	-	6	1.20	
Avenue B	Main St & Helen Dr	SB	Metered	4	32%	75%	1	3	-	-	-	-	1	-	-	-	5	1.25	20%	14	2.80	
Avenue B	Main St & Helen Dr	NB	Metered	6	24%	50%	1	1	-	-	1	-	-	1	-	-	4	0.67	25%	16	4.00	
Avenue A	Main St & Helen Dr	NB	Metered	10	15%	30%	1	1	1	-	-	-	-	-	-	-	4	0.40	25%	17	4.25	
Laurel Street	Avenue A & Lester Ave	EB	Free	12	11%	25%	4	-	2	1	-	-	-	-	-	-	7	0.58	-	14	2.00	
Laurel Street	Avenue A & Lester Ave	WB	Free	6	36%	50%	3	1	-	-	1	1	-	1	-	-	7	1.17	14%	24	3.43	
Jennison Avenue	Main St & Corliss Ave	SB	Metered	3	0%	0%	-	-	-	-	-	-	-	-	-	-	0	0.00	-	0	0.00	
Jennison Avenue	Main St & Corliss Ave	NB	Metered	7	5%	29%	4	-	-	-	-	-	-	-	-	-	4	0.57	-	4	1.00	
Corliss Avenue	Willow St & Ozalid Rd	EB	Free	10	15%	60%	3	1	2	-	-	1	-	-	-	-	7	0.70	-	17	2.43	
Corliss Avenue	Willow St & Ozalid Rd	WB	Free	16	9%	44%	11	2	-	-	-	-	-	-	-	-	13	0.81	-	15	1.15	
Lewis Street	Willow St & Jennison Ave	WB	Free	10	16%	50%	1	1	2	1	1	-	-	-	-	-	6	0.60	-	18	3.00	
TOTAL				156	19%	25%	142	37	18	4	6	3	1	4	1	0	2	218	1.40	4%	404	1.85

Table 24: Weekend (Saturday, 4/27) Length of Stay and Turnover Observations Across On-Street Parking Facilities in the Downtown Sub-Area

Street Name	Cross Streets	POT	Type	Supply	Utilization		Saturday, 4/27											Total Cars/Day	Avg Turn-over	Time Violation Rate	Total Hours Parked	Average Length of Stay (Hrs)
							Observed Length of Stay															
					Avg	Peak	1-Hr	2-Hr	3-Hr	4-Hr	5-Hr	6-Hr	7-Hr	8-Hr	9-Hr	10-Hr	11-Hr					
Main Street	Arch St & N Broad St	EB	Metered	3	48%	100%	-	2	1	1	1	-	-	-	-	-	-	5	1.67	-	16	3.20
Main Street	Arch St & N Broad St	WB	Metered	3	73%	100%	1	5	3	1	-	-	-	-	-	-	-	10	3.33	-	24	2.40
N. Broad Street	Main St & Railroad Track	NB	Metered	12	30%	58%	-	1	1	4	-	-	2	1	-	-	-	9	0.75	11%	40	4.44
Avenue D	Main St & Dead End	NB	Metered	5	53%	80%	-	1	2	-	-	-	1	1	1	-	-	6	1.20	33%	29	4.83
Main Street	Avenue D & Avenue C	EB	Metered	10	20%	60%	3	8	1	-	-	-	-	-	-	-	-	12	1.20	-	22	1.83
Main Street	Avenue D & Avenue C	WB	Metered	9	66%	100%	5	3	2	5	-	2	1	-	1	-	-	19	2.11	-	65	3.42
Avenue C	Main St & Avenue B	NB	Metered	3	76%	100%	-	-	-	-	-	-	-	1	-	2	-	3	1.00	100%	25	8.33
Main Street	Avenue C & Avenue B	EB	Metered	7	29%	57%	1	3	2	1	1	-	-	-	-	-	-	8	1.14	-	22	2.75
Main Street	Avenue C & Avenue B	WB	Metered	10	40%	80%	6	5	2	1	1	1	1	-	-	-	-	17	1.70	-	44	2.59
Main Street	Avenue B & Avenue A	EB	Metered	4	9%	25%	1	-	1	-	-	-	-	-	-	-	-	2	0.50	-	4	2.00
Main Street	Avenue B & Avenue A	WB	Metered	6	3%	17%	-	1	-	-	-	-	-	-	-	-	-	1	0.17	-	2	2.00
Avenue B	Main St & Helen Dr	SB	Metered	4	52%	75%	-	-	2	-	-	-	-	-	1	1	-	4	1.00	50%	23	5.75
Avenue B	Main St & Helen Dr	NB	Metered	6	21%	33%	3	-	1	-	-	-	-	-	1	-	-	5	0.83	20%	14	2.80
Avenue A	Main St & Helen Dr	NB	Metered	10	15%	50%	4	4	-	1	-	-	-	-	-	-	-	9	0.90	0%	16	1.78
Laurel Street	Avenue A & Lester Ave	EB	Free	12	5%	17%	1	3	-	-	-	-	-	-	-	-	-	4	0.33	-	7	1.75
Laurel Street	Avenue A & Lester Ave	WB	Free	6	45%	50%	-	1	-	-	-	-	-	1	-	-	1	4	0.67	75%	30	7.50
Jennison Avenue	Main St & Corliss Ave	SB	Metered	3	0%	0%	-	-	-	-	-	-	-	-	-	-	-	0	0.00	-	0	0.00
Jennison Avenue	Main St & Corliss Ave	NB	Metered	7	1%	14%	1	-	-	-	-	-	-	-	-	-	-	1	0.14	-	1	1.00
Corliss Avenue	Willow St & Ozalid Rd	EB	Free	10	0%	0%	-	-	-	-	-	-	-	-	-	-	-	0	0.00	-	0	0.00
Corliss Avenue	Willow St & Ozalid Rd	WB	Free	16	0%	0%	-	-	-	-	-	-	-	-	-	-	-	0	0.00	-	0	0.00
Lewis Street	Willow St & Jennison Ave	WB	Free	10	39%	70%	1	1	2	1	1	1	-	-	1	1	-	9	0.90	-	43	4.78
TOTAL				156	22%	30%	27	38	20	15	4	7	6	3	5	2	1	128	0.82	13%	427	3.34

PUBLIC ENGAGEMENT AND STAKEHOLDER INTERVIEWS

The Village of Johnson City is generating remarkable momentum, as evidenced by the Village's designation as an iDistrict, construction of the Binghamton University health sciences buildings, expansion of UHS's Wilson Medical Center and adjacent campus, and award of various grants to support economic development and downtown placemaking. Given that background, the consultants interviewed representative downtown stakeholders in an effort to appreciate the wants, needs, and expectations of the public parking system from a variety of perspectives, as growth continues to rapidly expand in the study area.

Topics of discussion included current parking and access frustrations, appropriate on- and off-street parking rates, parking enforcement and fines, hours of operation, development and municipal codes/ordinances, acceptable walking distances from a parked vehicle to ones' destination, and appropriate locations for a new public parking facility. Interviews were around one hour in length, located in Village offices, organized by the different stakeholder groups including: local business owners/managers; residents; faith group representatives; spokespersons from Binghamton University and UHS; developers/building owners; and elected officials, and Planning Board and Zoning Board of Appeals members. Below is a summary of common statements and concerns raised at these meetings.

1. Several stakeholders brought up that there is only one designated parking enforcement officer for the whole of the Village for eight (8) hours of the day. A commonly cited and recurring concern was that this was not enough manpower to effectively enforce the parking policies currently in place and address the parking issues reported to the Village by constituents. The majority of the stakeholders interviewed, especially those representing healthcare agencies and faith-based groups, were adamant that parking enforcement efforts needed to be improved in the near term to support continued growth and vitality downtown.
2. There was a general consensus among stakeholders that the Village needed to be made more walkable, especially downtown and that parking needs to be priced by demand. It was stated that the number of small parking lots allocated to serving just one building or destination does not create an attractive streetscape and prioritizes vehicles over people.
3. Many individuals opined that there is not enough usage of the parking facilities that currently exist and that actions should be taken to better identify those facilities to searching drivers and incent individuals to make the most of the parking already in existence before creating new supply.
4. As a principle, most stakeholders agreed that the fee for parking should reflect its relative value as demonstrated by utilization, with pricing for parking spaces in high demand being set higher and the cost of parking for underused spaces being substantially lower, or even free to create natural incentives for the drivers to balance supply and demand. However, the majority of residents also felt that there should be a return to three-hour free parking to reduce barriers to patronage and place the Village on even footing with surrounding communities.
5. Several individuals raised concerns with the new multi-space meters ("kiosks"), stating that the design of these mechanisms was not as intuitive as the old single-head meters and that there had not been adequate education for the general public to ease the transition to the new machines. It was also suggested that this lack of education and support during the transition to the new meters had resulted in negative general opinions of the downtown experience, tension among individuals unfamiliar with the new machines, and citations being issued due to non-

payment or other errors occurring due to a lack of understanding of how the new meters worked. There is an expressed demand for education about the new kiosks in order to avoid ticketing.

6. Binghamton University has a first-come, first-served permit system for their campus lots in the Healthcare Sub-Area and are capable of handling their parking needs accordingly. The University would like to collaborate with the Shorr Family Firehouse Stage and Goodwill Theatre to better support productions and events in the theater within their own lots on nights and weekends and also explore shared parking opportunities during weekdays within the lots surrounding the theater buildings when the complex is not active.
7. The parking for Wilson Medical Center and surrounding ancillary UHS buildings is complementary to employees and patients (besides the garage) with only limited restrictions, which is why those lots closest to the buildings are always in very high demand. Parking enforcement in these private facilities is very aggressive to maintain balance between patient, visitor, and staff needs. It is common practice for employees who cannot get their first choice of parking spaces to migrate to on-street spaces in the surrounding area, occasionally in competition with area residents and businesses. In effort to ease some of the demand for parking in surrounding lots, UHS is reintroducing valet parking for the 1st and 2nd quarters of the calendar year for patients and visitors.

Public Questionnaire

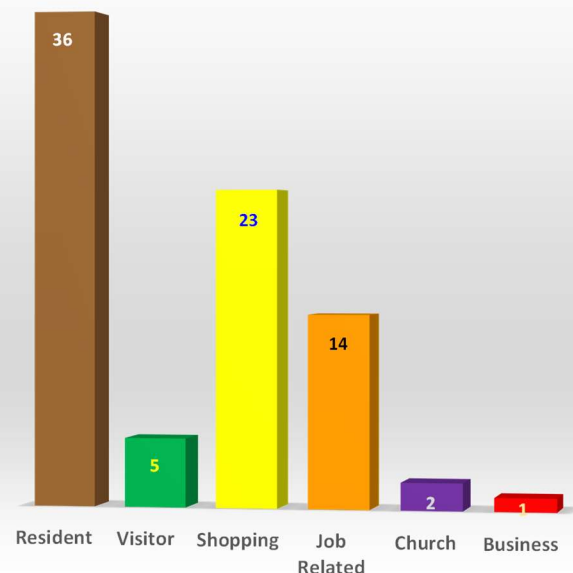
DESMAN was tasked with conducting a public survey to gather information on the general public's parking patterns, behaviors, and opinions. The intent of this initiative was to create another avenue for collecting input from the general public outside the organized stakeholder meetings. The online survey, which ran over thirty-days and was promoted by Village leaders, contained ten (10) total questions and received a total of eighty-three (83) responses. Questions and responses to them were as follows:

1. *What is the primary nature/purpose of your visit when you come to Johnson City?"*

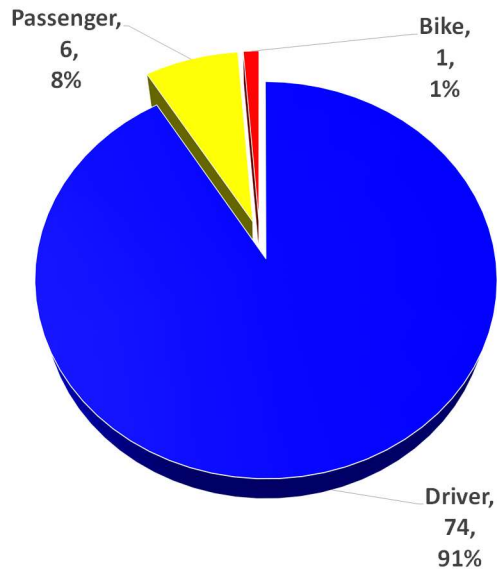
Of 81 respondents, roughly 44% identified themselves first and foremost as Residents. 28% of respondents indicated that came into Johnson City to shop, while 17% stated they came to work or conduct some job-related business. Only about 6% of respondents identified themselves primarily as a visitor.

This response was reasonable in DESMAN's experience, as the highest percentage of participants for surveys regarding downtown parking conditions are commonly local residents, employees, and regular business or institutional patrons.

PRIMARY PURPOSE OF VISIT



TRIP MODE



2. "Please identify your primary mode of transportation when travelling to or from the Village."

81 individuals responded to this question, of which 98% indicated they came by personal vehicle. 91% of respondents indicated they drove themselves while 8% stated they were a passenger in a private vehicle. Only one respondent indicated they bicycled in or out of the Village and none of the respondents stated they primary came by walking, transit, or other means.

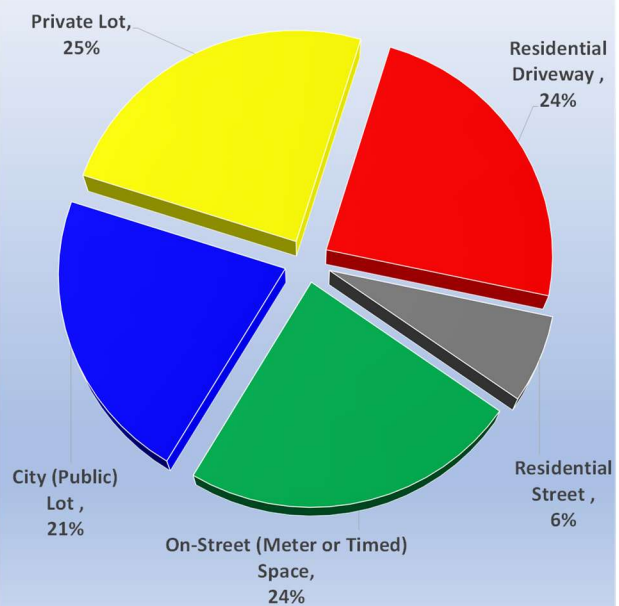
This response rate appears appropriate for the nature of the survey and local conditions. The U.S. Census Bureau reported in the 2022 American Community Survey specific to the Village of Johnson City that 82% of survey participants commuted to work each day by personal vehicle, either as a driver or passenger.

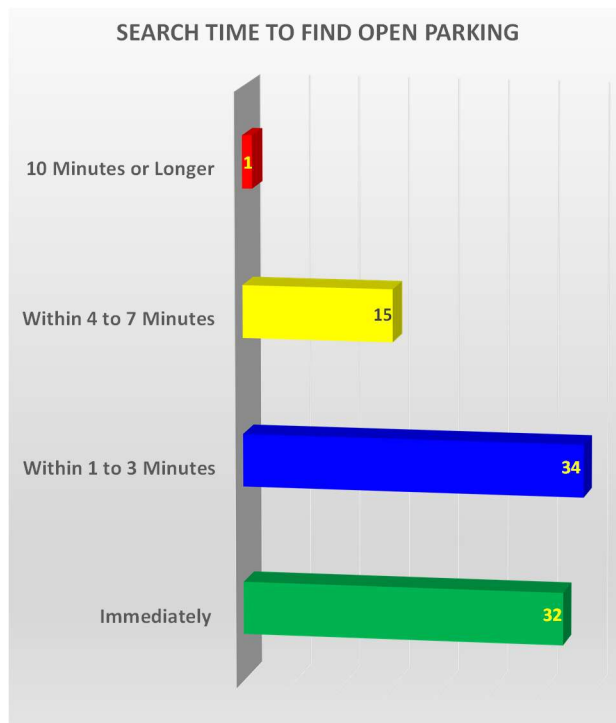
3. "When you come to Johnson City, where do you typically park your vehicle?"

Respondents were allowed to select more than one answer for this question, resulting in a total of 93 responses. A fairly small number of respondents indicated that they parked regularly on a residential street, which presumably was not subject to metering or any kind of time limit regulation. The remaining responses were fairly evenly distributed between private lots, residential driveways, public parking lots, and public on-street spaces regulated by a meter or posted time limit.

The responses to this question provide an interesting contrast to market conditions, as respondent's parking practices appear to be equally divided between private and public parking spaces. The inventory of parking supply across the study area indicated that only about 6% of the total number of parking spaces were contained in public parking lots and only 39% of on-street spaces were outside the Residential Sub-Area and potentially subject to some form of time limit or metering.

TYPICAL PARKING LOCATION





4. “How long does it take to find an available parking space in Johnson City?”

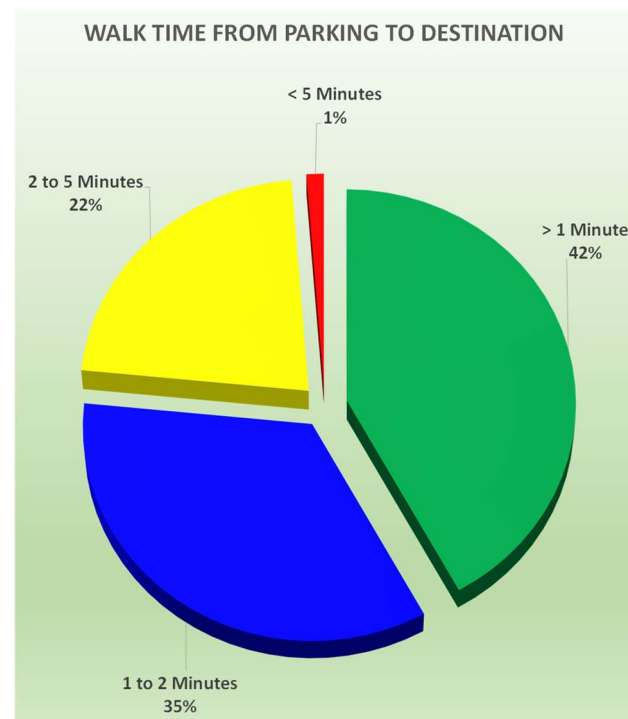
Respondents were asked to identify their typical experience looking for an open parking space from one of four possible categories. 82 of the 83 total respondents answered this question. Over 80% of the responses indicated that survey participants could usually find an open parking space within three minutes or less; half of these individuals indicated they could find open parking ‘immediately’ upon looking for it. Less than 20% of respondents indicated they had to look for between four and seven minutes and only one individual stated it took over ten minutes to find an open spot.

These responses are supported by DESMAN’s field observations which suggested there was a substantial number of open parking spaces across the study area during field surveys.

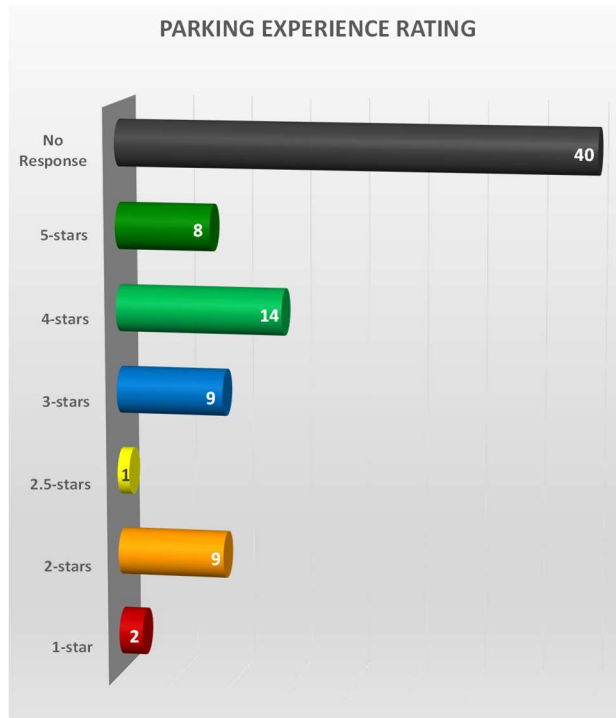
5. “How long does it take for you to walk from your parking location to your intended destination?”

While the prior questions spoke to availability, this question was designed to measure relative proximity. In many downtowns, drivers report being able to locate open spaces with little difficulty, but still consider the quality of the experience poor as the open spaces are an unreasonable distance from their planned destination. Acceptable walking distances vary widely from community to community based on a number of factors including street design, local expectations, streetscape, lighting, the quality of crosswalks and sidewalks, and the number of bisecting roadways along the path of travel. Rather than define acceptable walking distance as a linear measure, it is often more effective to reference it by the time required to travel from parking to destination.

Of the 81 individuals responding to this question, 77% stated they could typically locate parking within a two-minute walk of their destination or less. While ambulatory rates vary by individual, this would suggest that the majority of respondents were



parking either on the same block or the adjacent block from their destination. This is a favorable condition in most communities in DESMAN's experience.

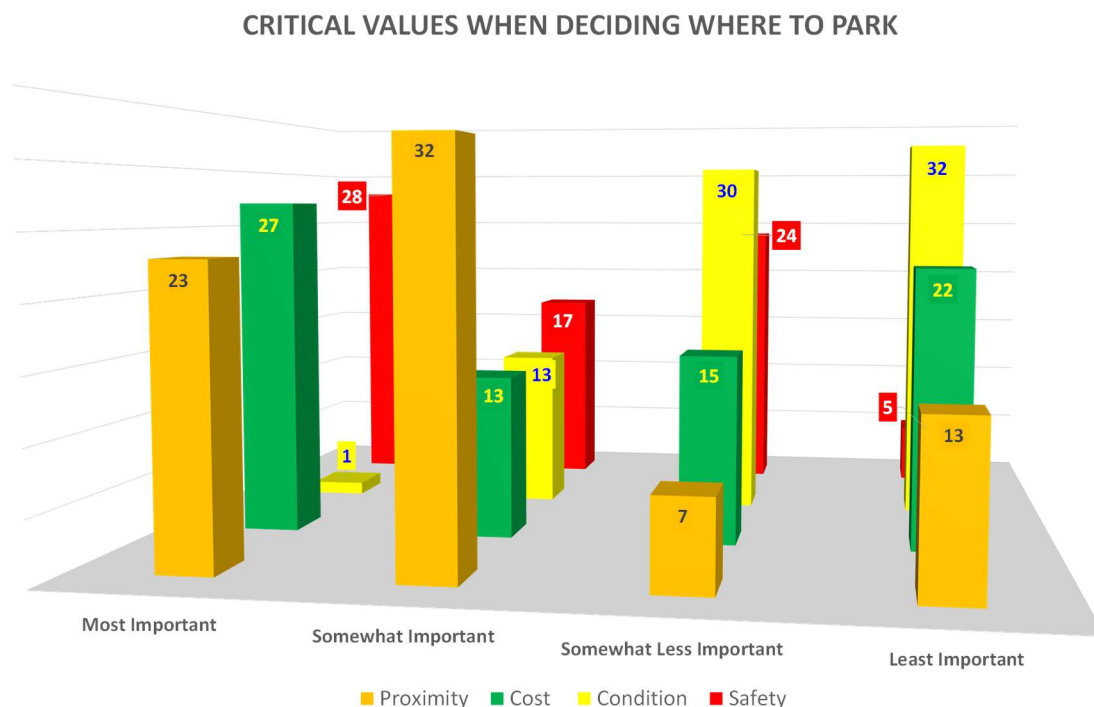


6. "How would you rate your overall parking experience in Johnson City?"

Respondents to this question were asked to score their experience on a range of five-stars, equating to an 'excellent' experience, to one-star, referencing a 'terrible' experience. Respondents were not asked to evaluate any particular aspects or features of the experience - such as proximity, safety, or walking environment - just the event as a whole, and were not provided any defined metrics (e.g., lighting, distance to destination, etc.) for evaluating the experience.

Of the 83 respondents completing the survey, less than half answered this question. 72% of those that did respond characterized the experience as three-stars (average) or better. 21% of the individuals answering the question rated the experience as two-stars.

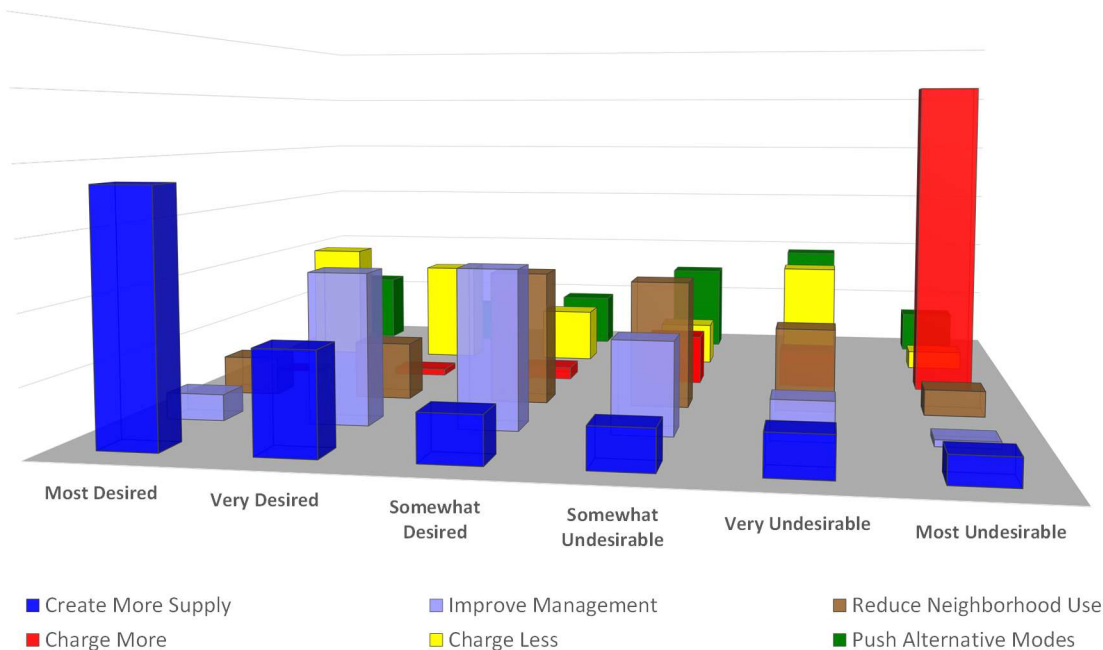
7. "Considering the common values of Proximity (to destination), Cost (to park), Condition (of the parking facility), and perceived Safety (of the parking facility), how would you rank each of these values from Most Important (1) to Least Important (4) when choosing where to park?"



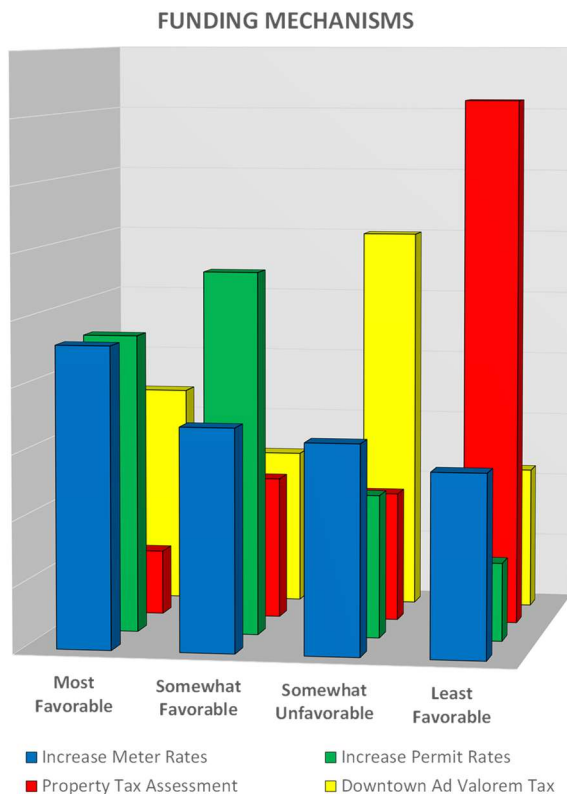
Roughly 75 individuals responded to this question. 73% of respondents considered proximity to their destination to be relatively important when deciding where to park and a majority of respondents (60%) also consider safety to be an important factor when deciding where to park. The outlook on the cost of parking varied with almost half agreeing it is relatively important and the other half in agreement that cost is not as important as other parking factors. 83% considered condition of the parking facility to be less or least important.

8. ***“Common solutions to parking challenges in downtown include the following: a) Provide more parking spaces (supply); b) Improve the management of existing parking spaces to get greater efficiency and use out of the existing supply; c) Reduce parking demand/utilization in neighborhoods; d) Charge more for parking to influence parker behavior; e) Charge less for parking to encourage more visitors to downtown; and f) Promote alternate (i.e., non-auto) travel modes. On a six-point scale between “Most Desirable” and “Most Undesirable,” how would you rate your feelings about each of these common solutions?”***

RANKING OF COMMON SOLUTIONS



Only 71 of the 83 survey participants responded to this question. The strongest support expressed was for creating more parking supply; 77% of respondents felt this was Somewhat, Very, or Most Desirable. Roughly 70% of respondents felt improving the management of existing parking assets was Somewhat, Very, or Most Desirable. Roughly 50% felt reducing parking use in neighborhoods was in some way desirable; the other half of respondents felt it was in some way undesirable. Only 4% of respondents felt charging more for parking was desirable; 73% of respondents felt it was the most undesirable of potential solutions. Roughly 60% of respondents supported some form of charging less for parking, while the remainder felt this was undesirable in some way. Only 37% of respondents felt programs promoting alternative transportation modes were desirable.



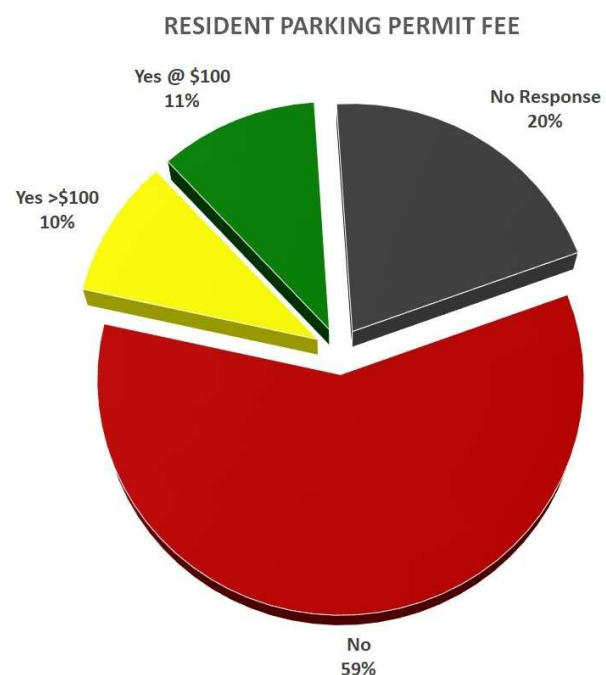
9. ***“Any improvements to the current public parking system in the Village will most likely require some form of revenue enhancement to fund, as the current parking system operates on a break-even basis. Common mechanisms for funding improvements to a public parking system include the following: A) Increasing rates for metered/hourly parking; B) Increasing rates for parking permits; C) Establish a special tax (ad valorem) tax on downtown businesses; and D) Establish a special property assessment on commercial and residential properties. Of these mechanisms, please indicate those you would rank as Most Favorable to Least Favorable.”***

Only 83% of survey participants elected to respond to this question. The greatest support was for increasing parking permit rates, as 75% of respondents found this option Most to Somewhat Favorable, followed by increasing meter rates with 59% rating the option Most to Somewhat Favorable. Only 43% of respondents found the

idea of the Downtown Ad Valorem Tax Most or Somewhat Favorable. 72% of respondents felt that any kind of Property Tax Assessment on commercial and residential properties is unfavorable.

10. ***“Would you be in support of the establishment of a Residential Parking Permit program for neighborhoods abutting downtown to cut down on area employees and visitors parking on residential streets that supported itself through permit fees? If yes, would you be more or less inclined to support the program if the cost of each permit was \$100/year? How about if the cost of the permit was less than \$100/year?”***

Roughly 20% of survey participants did not respond to this question. Of those that did respond, 59% did not support any form of a Residential Parking Permit program that would charge for permits. 10% of respondents indicated they would only support such a program if the cost of a permit was less than \$100/year. The remainder (11%) said they would support a program charging \$100/year for each permit.



The survey closed with an option for participants to provide additional comments and thoughts regarding parking in Johnson City. There was a total of 61 individual comments recorded. DESMAN has consolidated repeating statements and sentiments into the following statements:

1. *I believe a large part of the solution is improved public transit. While parking is necessary, I would like see less traffic and more walking and public transportation. Providing free or low-cost bulk parking outside the village, and more public transport into the Village will reduce congestion. You can't have parking problems if there are no cars to park.*
2. *Bring back coin meters and please fix the machines, a lot do not take cash, and not everyone uses credit cards. And charge less to increase shopping traffic! Senior Citizens can't afford to pay for both parking and support local businesses. Smaller, safe, free parking ramps like those in Saratoga are needed desperately. Drawing people into the downtown is critical. Whatever can be done to make access easy, safe, and affordable should be a priority.*
3. *Please start enforcing parking violations on people who are parked there for no reason to allow employees of actual business to have a spot. There is not enough parking around Wilson Hospital and it will only get more challenging when the Tower is complete. I am most affected (adversely) by hospital parking encroachment on private lots (i.e., hospital staff and visitors taking spots in our private lot.)*
4. *A 15-minute free zone should be created for pick up/drop off in front of coffee shops. The meters are frustrating to have to pay every time. If I am running in to grab a coffee and go, this can't be accomplished in 5 minutes. If I am going to stay at an establishment I don't mind paying for parking.*
5. *We need cheaper public electric vehicle charging.*
6. *I have no issues. I live in the Victory Building and pay for access to a private lot. JC is very walkable.*
7. *The problem is not lack of parking spaces; it is allocation of parking spaces.*
8. *The metered parking on the streets is fine as long as the parking fees are being spent within the city to improve the parking situation and not being added to the General Fund. There is not enough clarity about how the parking revenues are being spent.*
9. *Handicapped parking with easy access to sidewalks should be considered. I am handicapped and need nearby parking to destinations such as going to lunch at Reville or pick up at New Century.*
10. *Employee parking in the public lots is extremely important for the operations of downtown businesses. The Village should consider providing free or low-cost bulk parking outside of the main downtown area for those who cannot pay the meter fee.*

CONCLUSIONS

Based on the preceding work, DESMAN draws the following conclusions regarding downtown parking in the Village of Johnson City:

- A. Overall, there appears to be large quantities of open parking supply in each study area, although much of it is concentrated in public on-street spaces in residential areas and private off-street parking lots.

- B. The Village's public parking lots had significant supply available to support downtown commerce and growth, but represent a relatively small portion of the overall parking supply within the study area.
- C. The private parking facilities supporting all UHS facilities were all highly utilized, and in some cases, parked beyond striped capacity. This appeared to cause a spillover effect onto public on-street parking areas, including those on residential side streets.
- D. Binghamton University appeared to have ample available parking during field observations.
- E. A handful of private parking lots in the other sub-areas were observed to be running near, at, or over capacity, but did not appear to be impacting the abutting area.
- F. Typical length of stay in off-street parking facilities in the Downtown Sub-Area was roughly 3.4 hours in off-street facilities on weekdays in contrast to a typical length of stay of under 1.9 hours for on-street spaces in the same area. However, on weekends, length of stay for vehicles parked on-street was longer than off-street vehicles or drivers in the same area.
- G. Length of stay and turnover observations indicated that the Village's public parking lots in the Downtown Sub-Area supported higher numbers of total drivers per day and a higher rate of turnover than other private parking lots in the same area. In particular, the Willow Lot appears to be heavily utilized during the course of a typical weekday and weekend day.
- H. Along Main Street within the Downtown Sub-Area, on-street metered parking spaces turnover roughly 2.8 times per day and the average vehicle stays for less than 90 minutes on weekdays.
- I. The number of drivers using on-street spaces in the Downtown Sub-Area for six hours or longer represents a minority of all daily vehicles parked on-street based on field observations. The incidence of vehicles staying for longer than six hours increases substantially on weekends.
- J. There is a general desire to see more aggressive enforcement of existing parking policies and a desire to see more active management applied to existing parking assets.
- K. There appears to be a common interest in promoting more sustainable modes of travel, but no specific mandates for how this should occur or what user groups should be targeted.
- L. There is a great deal of concern surrounding how parking is administered and managed in UHS facilities and its potential impacts on abutting neighborhoods.
- M. Stakeholders acknowledge the cost of providing public parking, but are resistant to any increased or new fees to help fund improvements. There is a desire to see more transparency regarding how much the Village is collecting for paid parking and where the funds are going.
- N. Opinions are divided on the utility and effectiveness of the new multi-space meters (kiosks).

Exhibit A-1: Residential Sub-Area On-Street Parking Supply

ID	Street Name	Cross Streets	Direction	Spaces	Free	Metered	No Parking
A	West St	Sturtevant St & Corliss Ave	NB	21	21	-	-
			SB	44	44	-	-
B	Sergeant St	Sturtevant St & Corliss Ave	NB	22	22	-	-
			SB	20	20	-	-
C	Baker St	Corliss Ave & Main St	NB	36	36	-	-
			SB	25	25	-	-
D	Crocker Ave	Main St & Corliss Ave	NB	0	-	-	X
			SB	33	33	-	-
E	Albert St	Main St & Corliss Ave	NB	23	23	-	-
			SB	31	31	-	-
F	Allen St	Corliss Ave & Main St	NB	34	34	-	-
			SB	35	35	-	-
G	St Charles St	Corliss Ave & Main St	NB	35	35	-	-
			SB	36	36	-	-
H	Main St	Route 201 & St. Charles St	EB	0	Part of WISA		
			WB	0	-	-	X
I	Sturtevant St	West St & Sergeant St	EB	14	14	-	-
			WB	8	8	-	-
J	Sturtevant St	Sergeant St & Baker St	EB	9	9	-	-
			WB	6	6	-	-
K	Corliss Ave	West St & Sergeant St	EB	7	7	-	-
			WB	6	6	-	-
L	Corliss Ave	Sergeant St & Baker St	EB	7	7	-	-
			WB	6	6	-	-
M	Corliss Ave	Baker St & Crocker Ave	EB	5	5	-	-
			WB	7	7	-	-
N	Corliss Ave	Crocker Ave & Albert St	EB	4	4	-	-
			WB	0	-	-	X
O	Corliss Ave	Albert St & Allen St	EB	6	6	-	-
			WB	5	5	-	-
P	Corliss Ave	Allen St & St Charles St	EB	6	6	-	-
			WB	0	-	-	X
Q	Park Pl	St Charles St & Hudson St	EB	0	-	-	X
			WB	6	6	-	-
R	Grand Ave	Allen St / Elizabeth St & St Charles St	EB	0	-	-	X
			WB	5	5	-	-
S	Grand Ave	St Charles St & Hudson St	EB	0	-	-	X
			WB	3	3	-	-
T	Grand Ave	Hudson St & Harrison St	EB	0	-	-	X
			WB	4	4	-	-
U	Grand Ave	Harrison St & Baldwin St	EB	0	-	-	X
			WB	3	3	-	-
V	Grand Ave	Baldwin St & Willow St	EB	0	-	-	X
			WB	19	19	-	-
W	Grand Ave	Willow St & Johnson St	EB	0	-	-	X
			WB	13	13	-	-
X	Grand Ave	Johnson St & Cleveland Ave	EB	0	-	-	X
			WB	21	21	-	-
Y	Grand Ave	Cleveland Ave & Carhart Ave	EB	0	-	-	X
			WB	6	6	-	-
Z	St Charles St	Grand Ave & Dead End	NB	0	-	-	X
			SB	10	10	-	-
AA	Hudson St	Grand Ave & Dead End	NB	9	9	-	-
			SB	9	9	-	-
BB	Harrison St	Grand Ave & Dead End	NB	3	3	-	-
			SB	10	10	-	-
CC	Baldwin St	Grand Ave & Railway Track	NB	0	-	-	X
			SB	10	10	-	-
DD	Willow St	Endicott St & Grand Ave	NB	0	-	-	X
			SB	0	-	-	X
EE	Johnson St	Endicott St & Grand Ave	NB	0	-	-	X
			SB	6	6	-	-
FF	Cleveland Ave	Main St Terrace & Grand Ave	NB	6	6	-	X*
			SB	12	12	-	-
GG	Endicott Ave	Willow St & Johnson St	EB	13	13	-	-
			WB	13	13	-	-
HH	Endicott Ave	Johnson St & Cleveland Ave	EB	18	18	-	-
			WB	18	18	-	-
II	Custer Ave	Cleveland Ave & Carhart Ave	EB	0	-	-	X
			WB	9	9	-	-
JJ	Main St Terrace	Cleveland Ave to Dead End	EB	8	8	-	-
			WB	0	-	-	X
Total				725	725	-	21

*No Parking along northbound curb between Grand St and Custer St

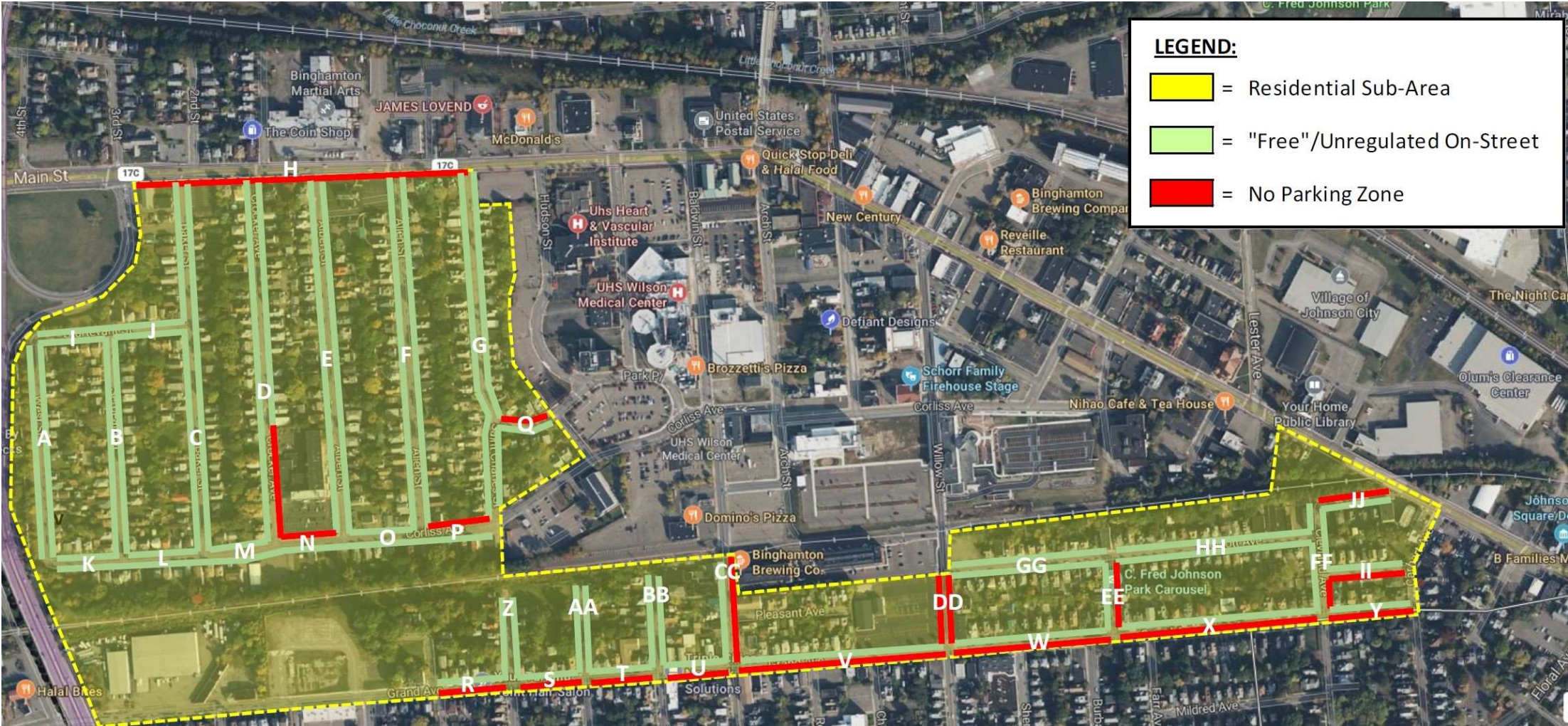


Exhibit A-2: Industrial Sub-Area On-Street Parking Supply

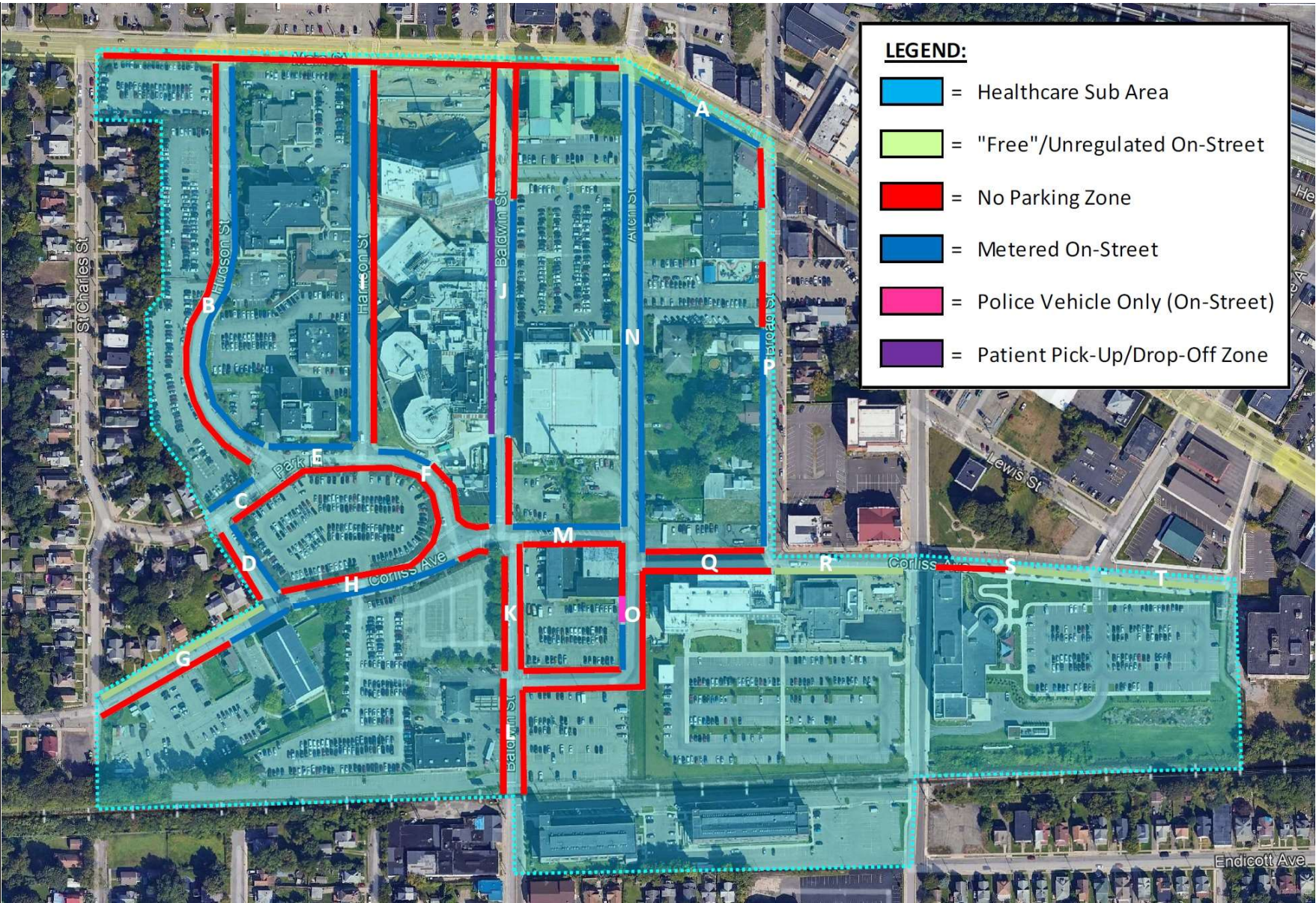
ID	Sub-Area	Street Name	Cross Streets	Direction	Spaces	Free	Metered	No Parking
A	Industrial East	Wells Ave	Main St & Dead End	NB	0	-	-	X
				SB	0	-	-	X
B	Industrial East	Brigham Ave	Main St & Dead End	NB	0	-	-	X
				SB	0	-	-	X
C	Industrial East	Lester Ave	Main St & Rail Line	NB	0	-	-	X
				SB	0	Part of Downtown Sub-Area		
D	Industrial East	Main St	Lester Ave & Wells Ave	EB	0	-	-	X
				WB	0	Outside Study Area Boundary		
E	Industrial West	Arch St	Main St & Rail Line	NB	0	Part of Downtown Sub-Area		
				SB	0	-	-	X
F	Industrial West	1st St	Main St & Rail Line	NB	0	-	-	X
				SB	8	8	-	
G	Industrial West	2nd St	Main St & Rail Line	NB	0	-	-	X
				SB	7	7	-	
H	Industrial West	3rd St	Main St & Endwell St	NB	0	-	-	X
				SB	11	11	-	
I	Industrial West	4th St	Main St & Endwell St	NB	8	8	-	
				SB	0	-	-	X*
J	Industrial West	Endwell St	3rd St & 4th St	WB	12	12	-	
				EB	0	-	-	X
K	Industrial West	Main St	4th St & Arch St	WB	0	-	-	X
				EB	0	Part of Residential Sub-Area		
Total					46	46	0	13

* No "No Parking" signs posted but also not enough room to park without obstructing traffic.



Exhibit A-3: Healthcare Sub-Area On-Street Parking Supply

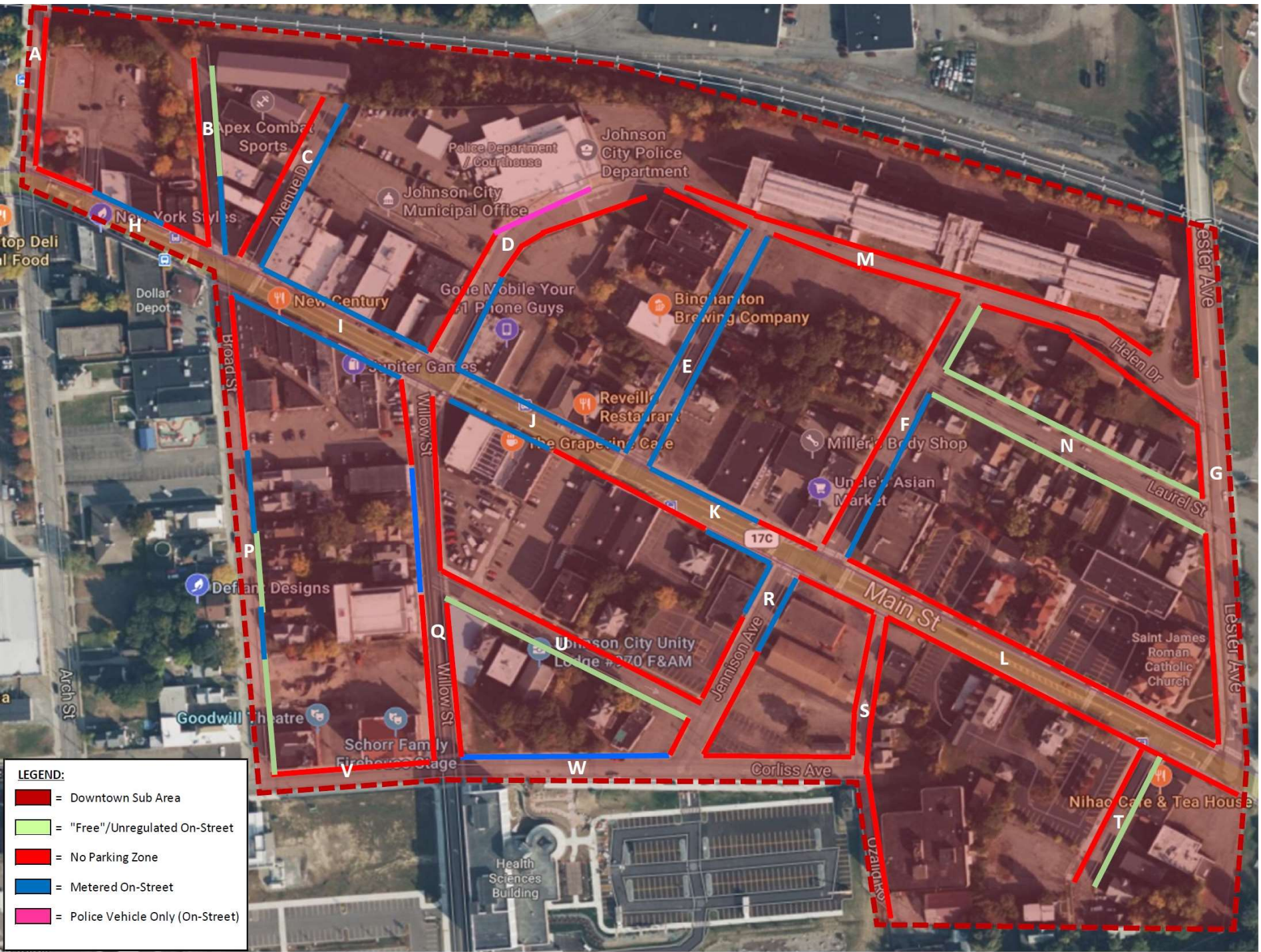
ID	Street Name	Cross Streets	Direction	Spaces	Free	Metered	No Parking
A	Main St	Arch St & N Broad St*	EB	3	-	3	
			WB	0	Part of Downtown Sub-Area		
B	Hudson St	Main St & Park Pl	NB	21	-	21	
			SB	0	-	-	X
C	Park Pl	Hudson St	EB	0	-	-	X
			WB	6	-	6	
D	Hudson St	Park Pl & Corliss Ave	NB	0	-	-	X
			SB	6	-	6	
E	Park Pl	Hudson St & Harrison St	EB	0	-	-	X
			WB	6	-	6	
F	Park Pl	Harrison St & Corliss Ave	EB	0	-	-	X
			WB	4	-	4	
G	Corliss Ave	St. Charles St & Hudson St	EB	5	-	5	
			WB	10	10	-	
H	Corliss Ave	Hudson St & Baldwin St	EB	12	-	12	
			WB	0	-	-	X
I	Harrison St	Main St & Park Pl	NB	0	-	-	X
			SB	18	-	18	
J	Baldwin St	Main St & Corliss Ave	NB	11	-	11	
			SB	3	-	3	
K	Baldwin St	Corliss Ave & Faatz Alley	NB	0	-	-	X
			SB	4	4	-	
L	Baldwin St	Faatz Alley & Railroad Track	NB	0	-	-	X
			SB	0	-	-	X
M	Corliss Ave	Baldwin St & Arch St	EB	0	-	-	X
			WB	15	-	15	
N	Arch St	Main St & Corliss Ave	NB	23	-	23	
			SB	24	-	24	
O	Arch St	Corliss Ave & Faatz Alley	NB	0	-	-	X
			SB	4	-	4	
P	N Broad St	Main St & Corliss Ave	NB	0	Part of Downtown Sub-Area		
			SB	14	-	14	
Q	Corliss Ave	Arch St & N Broad St	EB	0	-	-	X
			WB	0	-	-	X
R	Corliss Ave	N Broad St & Willow St	EB	11	11	-	
			WB	0	Part of Downtown Sub-Area		
S	Corliss Ave	Willow St & Jennison Ave	EB	6	6	-	
			WB	0	Part of Downtown Sub-Area		
T	Corliss Ave	Jennison Ave & Ozalid Rd	EB	15	15	-	
			WB	0	Part of Downtown Sub-Area		
Total				221	46	175	14



* The eastbound curb of Main Street between St Charles Street and Arch Street is a continuous "No Parking" zone.

Exhibit A-4: Downtown Sub-Area On-Street Parking Supply

ID	Street Name	Cross Street	Direction	Spaces	Free	Metered	No Parking
A	Arch St	Main St & Railroad track	NB	0	-	-	X
			SB	0	Part of Downtown Sub-Area		
B	N Broad St	Main St & Railroad track	SB	0	-	-	X*
			NB	12	10	2	
C	Avenue D	Main St & Dead End	SB	0	-	-	X
			NB	5	-	5	
D	Avenue C	Main St & Helen Dr	SB	0	-	-	X**
			NB	3	-	3	
E	Avenue B	Main St & Helen Dr	SB	4	-	4	
			NB	6	-	6	
F	Avenue A	Main St & Helen Dr	SB	10		10	
			NB	7	-	7	
G	Lester Ave	Main St & Rail Line	NB	0	Part of E Industrial Sub-Area		
			SB	0	-	-	X
H	Main St	Arch St & N Broad St	EB	0	Part of Healthcare Sub-Area		
			WB	3	-	3	
I	Main St	N Broad St & Avenue C	EB	10	-	10	
			WB	9	-	9	
J	Main St	Avenue C & Avenue B	EB	7	-	7	
			WB	10	-	10	
K	Main St	Avenue B & Avenue A	EB	4	-	4	
			WB	6	-	6	
L	Main St	Avenue A & Lester Ave	EB	0	-	-	X
			WB	0	-	-	X
M	Helen Dr	Avenue B & Lester Ave	EB	0	-	-	X
			WB	0	-	-	X
N	Laurel St	Avenue A & Lester Ave	EB	12	12	-	
			WB	6	6	-	
P	N Broad St	Main St & Corliss Ave	SB	0	Part of Healthcare Sub-Area		
			NB	12	-	12	
Q	Willow St	Main St & Corliss Ave	SB	6	-	6	
			NB	0	-	-	X
R	Jennison Ave	Main St & Corliss Ave	SB	3	-	3	
			NB	7	-	7	
S	Ozalid Rd	Corliss Ave & Main St	SB	0	-	-	X
			NB	0	-	-	X
T	Park St	Main St & Dead End	SB	0	-	-	X*
			NB	11	11	-	
U	Lewis St	Willow St & Jennison Ave	EB	25	25	-	
			WB	0	-	-	X
V	Corliss Ave	N Broad St & Willow St	EB	0	Part of Healthcare Sub-Area		
			WB	0			X
W	Corliss Ave	Willow St & Jennison Ave	EB	0	Part of Healthcare Sub-Area		
			WB	10	10	-	
X	Corliss Ave	Jennison Ave & Ozalid Rd	EB	0	Part of Healthcare Sub-Area		
			WB	0	-	-	X*
Total				188	74	114	16



* "No Parking" signage is largely absent, but street width will not allow parking on both sides of the roadway.

** Two spaces signed for Police Use only in front of the George Kortuz Justice Building.

Exhibit B-1: Residential Sub-Area Off-Street Parking Supply

ID	Facility Name	Sub-Area	Ownership/ Access	Facility Type	Supply
19	JC Learning Center Lot	Residential	Private/Private	Lot	15
20	19 Baker Street Lot	Residential	Private/Private	Lot	14
21	16 Baker Street Lot	Residential	Private/Private	Lot	40
22	Barber Memorial Home Lot	Residential	Private/Private	Lot	42
23	Campus Square North Lot	Residential	Private/Private	Lot	36
24	Campus Square South Lot	Residential	Private/Private	Lot	99
25	Moore Tire Sales Lot	Residential	Private/Private	Lot	36
26	DGS General Contractor Lot	Residential	Private/Private	Lot	6
27	346 Grand Ave Lot	Residential	Private/Private	Lot	150
57	Islamic Center Lot	Residential	Private/Private	Lot	178
58	119 Endicott/HCA Lot	Residential	Private/Private	Lot	31
Total					647

*No striping (assumed about 30 spaces)



Exhibit B-2: Industrial Sub-Areas Off-Street Parking Supply

ID	Facility Name	Sub-Area	Ownership/ Access	Facility Type	Supply
1	UHS Primary Care Lot	Industrial West	Private/Private	Lot	32
2	All Saints Church Lot	Industrial West	Private/Private	Lot	39
3	Old JC High School / Rear Lot	Industrial West	Private/Private	Lot	50
4	Old JC High School / Front Lot	Industrial West	Private/Private	Lot	97
5	Women's OBGYN Assoc Lot	Industrial West	Private/Private	Lot	65
6	United Dental Services Lot	Industrial West	Private/Private	Lot	19
7	Sante CWHC Lot	Industrial West	Private/Private	Lot	39
8	UHS Pharmacy Lot	Industrial West	Private/Private	Lot	63
9	McDonalds Lot	Industrial West	Private/Private	Lot	32
10	Walgreens/ UHS Lot	Industrial West	Private/Private	Lot	97
11	NBT Bank Lot	Industrial West	Private/Private	Lot	33
12	WMC Employee Parking Lot	Industrial West	Private/Private	Lot	58
13	US Postal Service Lot	Industrial West	Public/Private	Lot	38
14	305 Main Street Bldg. Lot	Industrial West	Private/Private	Lot	20
Total					682

ID	Facility Name	Sub-Area	Ownership/ Access	Facility Type	Supply
79	Village Hall Lot	Industrial East	Public/Public	Lot	58
80	Village Hall Public Works Lot	Industrial East	Public/Private	Lot	36
81	JH Robotics Lot	Industrial East	Private/Private	Lot	46
82	Public Library Lot	Industrial East	Public/Public	Lot	40
83	Equinox Broadcasting Lot	Industrial East	Private/Private	Lot	32
84	Slavik & Company Lot	Industrial East	Private/Private	Lot	12
85	Olum's Clearance Center Lot	Industrial East	Private/Private	Lot	63
86	Southern Tier Auto Care Lot	Industrial East	Private/Private	Lot	19
87	Car Wash Lot	Industrial East	Private/Private	Lot	11
Total					317



Exhibit B-3: Healthcare Sub-Area Off-Street Parking Supply

ID	Facility Name	Sub-Area	Ownership/ Access	Facility Type	Supply
28	UHS Employee Parking Lot	Health Care	Private/Private	Lot	80
29	UHS Wilson Square East Patient Lot	Health Care	Private/Private	Lot	50
30	UHS Wilson Square West Patient Lot	Health Care	Private/Private	Lot	91
31	UHS MRI Parking Lot	Health Care	Private/Private	Lot	12
32	UHS HVI Patient Lot	Health Care	Private/Private	Lot	18
33	UHS Wilson Sq/Place Employee Lot	Health Care	Private/Private	Lot	99
34	UHS Neurosurgery/Opthamology Lot	Health Care	Private/Private	Lot	100
35	UHS Pain & Spine Clinic Lot	Health Care	Private/Private	Lot	8
36	WMC Employee Parking Lot	Health Care	Private/Private	Lot	183
37	Eckelberger Tower Lot	Health Care	Private/Private	Lot	129
38	122 Badwin Street Parking Lot	Health Care	Private/Private	Lot	59
39	WMC Employee Parking Lot	Health Care	Private/Private	Lot	213
40	UHS Evening Lot	Health Care	Private/Private	Lot	99
41	Dunkin Donuts Lot	Health Care	Private/Private	Lot	13
42	Domino's Pizza Lot	Health Care	Private/Private	Lot	20
43	Sarah Jane Johnson Church Lot	Health Care	Private/Private	Lot	35
44	WMC Patient & Visitor Parking Lot	Health Care	Private/Private	Lot	156
45	WMC Physician/Employee Garage	Health Care	Private/Private	Garage	355
46	WMC North Faatz Alley Employee Lot	Health Care	Private/Private	Lot	70
47	WMC South Faatz Alley Employee Lot	Health Care	Private/Private	Lot	135
48	8 Bits Restaurant Lot	Health Care	Private/Private	Lot	15
49	18 Broad St/HCA Lot	Health Care	Private/Private	Lot	55
51	OBGYN Breast Center Lot	Health Care	Private/Private	Lot	16
53	BU School of Pharmacy Visitor Lot	Health Care	Public/Private	Lot	10
54	Binghamton University - R&D Bldg Lot	Health Care	Public/Private	Lot	12
55	Binghamton U R-HSC Commuter Lot	Health Care	Public/Private	Lot	279
56	Baldwin/Sunrise Building Lots	Health Care	Private/Private	Lot	95
59	Binghamton U R-HSC 2 Commuter Lot	Health Care	Public/Private	Lot	205
Total					2,612

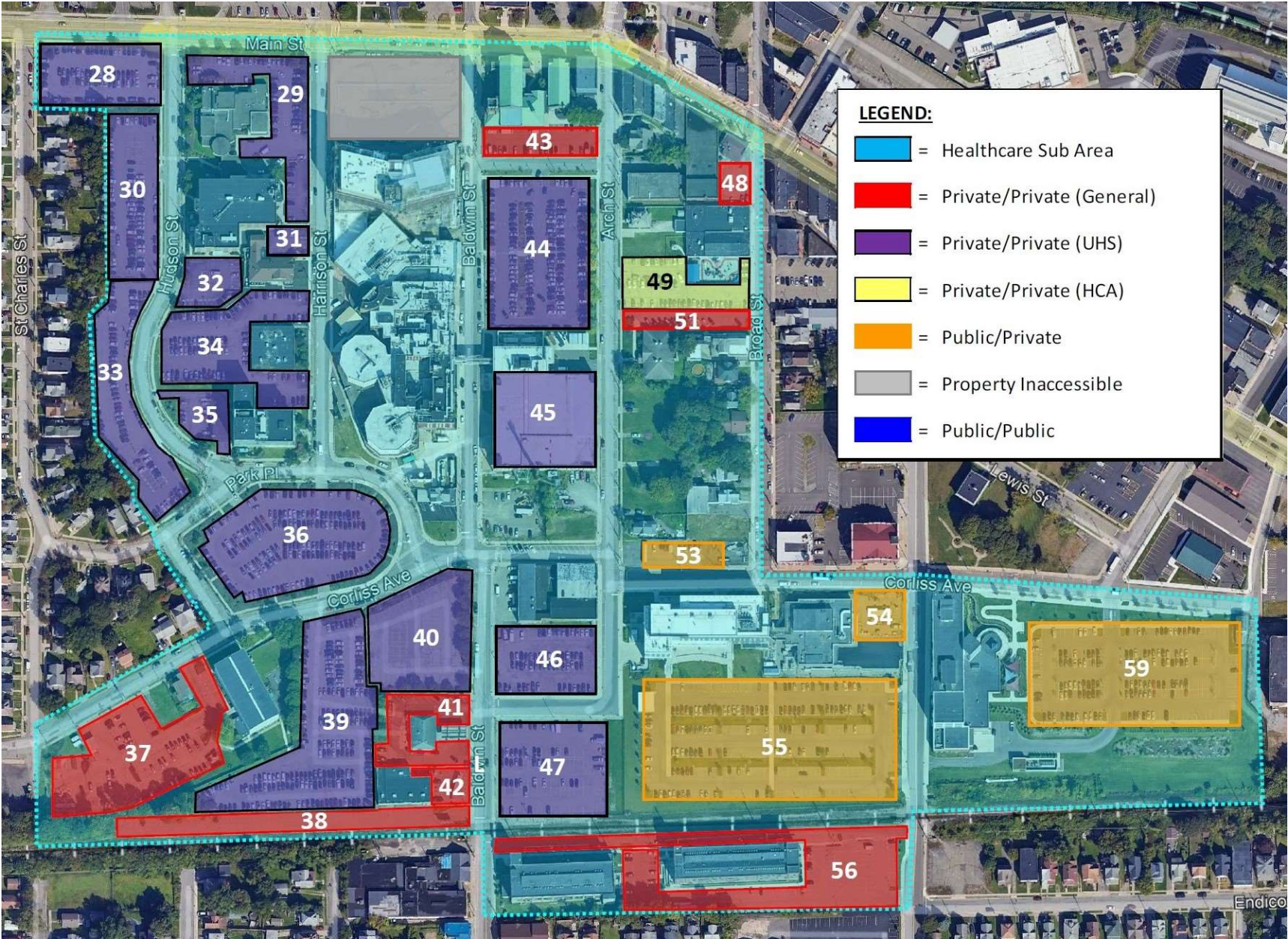


Exhibit B-4: Downtown Sub-Area Off-Street Parking Supply

ID	Facility Name	Sub-Area	Ownership/ Access	Facility Type	Supply
15	VJC - Isabelle Lot	Downtown	Public/Public	Lot	58
16	VJC - Municipal Lot	Downtown	Public/Public	Lot	59
17	VJC - Police Department Lot	Downtown	Public/Private	Lot	24
18A	VJC - Justice Lot	Downtown	Public/Public	Lot	27
18B	VJC - Main Street Lot	Downtown	Public/Public	Lot	20
50	VJC - Willow Lot	Downtown	Public/Public	Lot	59
52	Goodwill Theater lot	Downtown	Private/Private	Lot	97
60	14 Lewis Street Lot	Downtown	Private/Private	Lot	22
61	Guthrie JC Senior Care Lot	Downtown	Private/Private	Lot	15
62	Vitali Auto Exchange Lot	Downtown	Private/Private	Lot	50
63	215 Main Street Lot	Downtown	Private/Private	Lot	45
64	190 Main St (Dental) Lot	Downtown	Private/Private	Lot	4
65	M&T Bank Lot	Downtown	Private/Private	Lot	58
66	2 Jennison Ave Lot	Downtown	Private/Private	Lot	58
67	JF Rice Funeral Home Lot	Downtown	Private/Private	Lot	60
68	Old Mary Myers Salon Lot	Downtown	Private/Private	Lot	31
69	St. James Church Lot	Downtown	Private/Private	Lot	69
70	Knights of Columbus Lot	Downtown	Private/Private	Lot	42
71	Victory Lofts Southwest Lot	Downtown	Private/Private	Lot	73
72	Dollar General	Downtown	Private/Private	Lot	24
73	Millers Body Shop	Downtown	Private/Private	Lot	13
74	Victory Lofts Southeast Lot	Downtown	Private/Private	Lot	30
75	39 Laurel Street Lot	Downtown	Private/Private	Lot	31
76	NY Telephone Company Lot	Downtown	Private/Private	Lot	12
77	St. James Rectory Lot	Downtown	Private/Private	Lot	18
78	St. James School Lot	Downtown	Private/Private	Lot	42
88	Binghamton Realtor's Lot	Downtown	Private/Private	Lot	18
Total					1,059



APPENDIX B

DATE: *Wednesday, October 1, 2024*

TO: *Stephanie Yezzi, Director of Planning - Village of Johnson City*

CC: *John Judge, Vice President – DESMAN Inc.*

FROM: *Andrew S. Hill and Reese King-Hill*

PROJECT: *Village of Johnson City* **PROJECT #:** *30-23127.00*

RE: *Task 2 Report – Future Needs (Final)*

The consulting team worked with staff from the Village of Johnson City to identify emerging developments likely to impact parking supply and demand dynamics within the defined study area over the coming decade and developed an impact analysis using parking industry standard methodologies to project future parking supply and demand conditions. The following memorandum summarizes this work.

Methodology

Land use is a planning term applied to describe how a particular plot or building is being used. Types of land use include retail stores, restaurants, office buildings, residential complexes, etc. Within each major type there can be sub-types; for example, the general heading of a 'retail store' can apply to everything from a neighborhood convenience store to a big-box retailer. Land use is what generates parking demand; after all, one does not need parking for vacant lot.

Different land uses have different intensities of demand. For example, a single residential unit may occupy 1,000 square feet of area, but only need 1-2 parking spaces to support it, whereas the same 1,000 square feet used for an office might need 3-4 parking spaces. These different land uses also have different demand dynamics; the residential unit will require its 1-2 parking spaces on evenings, overnight, and weekends while the office space will require its 3-4 parking spaces on weekdays during business hours for the most part.

In order to project how much parking might be needed in the future, the consulting team had to develop an analysis of parking needs based on emerging developments; that is, projects which were likely to alter existing parking supply and/or demand relative to current conditions. The consulting team worked with the Village's Planning Department to develop an understanding of emerging developments which might:

- ✓ Displace existing land uses (thereby reducing parking demand) over the next decade;
- ✓ Introduce new land uses (thereby increasing parking demand) over the next decade;

- ✓ Covert existing buildings into new land uses which increase and/or reduce parking demand relative to existing conditions¹;
- ✓ Displace existing parking spaces (e.g., reduce supply) and/or introduce new parking facility (i.e., increase parking supply).

Information and assumptions for emerging developments were developed from project plans currently under construction, plans already filed with the Village, projects being negotiated with city or regional planning staff members, prior planning and transportation studies, and other information as provided by the city. The consulting team organized this information based on the Downtown Revitalization Strategic Investment Plan.

All future demand projections and conclusions regarding adequacy of parking supply to meet these needs were predicated on the following core assumptions:

- *If not clearly stated in plans or official filings, all proposed new development would provide parking in accordance with the Village's current Zoning ordinances.* Chapter 300 (Zoning) of the Village of Johnson City Code dated 06/20/2023 was used as a reference. DESMAN found the parking requirements under Part 5 (Development Standards), Article 51 (Off-Street Parking, Loading, and Stacking Regulations) to be aligned with parking demand ratios recommended by the Urban Land Institute and the Institute of Transportation Engineers.
- *Where future parking demand exceeded the parking supply planned for the project, or when future development created demand for which there was no appointed parking facility to support the needs, the consulting team assumed this demand would be absorbed within the nearest public parking spaces which had open capacity.* The consulting team acknowledges that, in some cases, depending on when demand occurs (i.e., day of week and/or time of day) some 'overflow' parkers may elect to park illicitly in private facilities closer to their destination if there is capacity available and the facility can be accessed. However, the analysis assumes all parkers will conduct themselves according to common moral codes and bypass these opportunities where present.
- *Emerging development projections build on projected peak hour conditions and absorbed vacancies.* As the analysis will show, DESMAN calculated that absolute peak hour of demand under current conditions, which often varied relative to observed peak occupancy for each sub-area. DESMAN then factored the additional demand generated by absorption of the vacant existing space in each sub-area and added that to the projected peak hour demand to show the cumulative demand when those vacant spaces are absorbed. Demand from emerging developments assumes the cumulative impact of the adjustment to peak hour conditions, the absorption of vacant space and the impact of new development without assuming any mitigation between each benchmark.

In the interest of accuracy and realism, DESMAN prepared a Shared Parking model specific to the defined study area within the Village. *Shared Parking* is a methodology for calculating the parking demands of a project or area developed by the Urban Land Institute (ULI) in collaboration with the Institute of Transportation Engineers (ITE) and the International Council of Shopping Centers (ICSC). This methodology is a departure from the standard zoning ordinance method of calculating required parking which is to

¹ This included the assumed absorption of building space which was vacant at the time that field occupancy surveys were conducted.

apply a parking demand ratio (or parking requirement per local code or ordinance) to each component within a project, sum the total of all demands and build against this figure. This traditional methodology treats parking demand as a fixed, unwavering phenomenon and, as result, often results in the provision of parking supply greater than the true need of the development or district. Shared Parking methodology allows the planner to accurately determine the need for the development or district as an organic whole, rather than an assembly of disparate parts. The result is provision of a parking supply to support the project or area which is adequate to meet the project's needs without building excess parking spaces.

Shared Parking models are comprised of industry standard base parking demand ratios, adjusted to reflect for variations in demand specific to each project's composition and locality, as well as fluctuations in demand according to time of day and year. Base parking demand ratios are developed through the long-term study of stand-alone land uses (i.e. office buildings, retail stores, hotel, etc.) with their own dedicated parking facilities. Researchers perform occupancy counts at different times of day, different days of the week, and different times of the year, to isolate the busiest hour of the busiest weekday and/or weekend day annually.

Once the peak hour is isolated, researchers divide the number of vehicles parked by the key driving element in each land use, such as the number of hotel rooms or total gross leasable square footage of the building. This division renders a parking demand ratio; the mathematic expression of the number of cars parked at the busiest hour of the busiest day related to the land use's key driver.

Table 1: Base Parking Demand Ratios

Land Use	User Group	Weekday	Weekend	Unit	Source
Retail	Shoppers	2.90	3.20	kfs	Shared Parking: 3rd Edition , Washington DC: ULI-The Urban Land Institute, 2020, p.16
	Employees	0.70	0.80	kfs	Shared Parking: 3rd Edition , Washington DC: ULI-The Urban Land Institute, 2020, p.16
Grocery	Shoppers	4.00	4.00	kfs	Shared Parking: 3rd Edition , Washington DC: ULI-The Urban Land Institute, 2020, p.16
	Employees	0.75	0.75	kfs	Shared Parking: 3rd Edition , Washington DC: ULI-The Urban Land Institute, 2020, p.16
Fast Casual Dining	Diners	15.25	15.00	kfs	Shared Parking: 3rd Edition , Washington DC: ULI-The Urban Land Institute, 2020, p.16
	Employees	2.15	2.10	kfs	Shared Parking: 3rd Edition , Washington DC: ULI-The Urban Land Institute, 2020, p.16
Take-Out/Café	Diners	12.40	12.70	kfs	Shared Parking: 3rd Edition , Washington DC: ULI-The Urban Land Institute, 2020, p.16
	Employees	2.00	2.00	kfs	Shared Parking: 3rd Edition , Washington DC: ULI-The Urban Land Institute, 2020, p.16
Library	Visitors	2.00	1.90	kfs	Shared Parking: 3rd Edition , Washington DC: ULI-The Urban Land Institute, 2020, p.16
	Staff	0.25	0.20	kfs	Shared Parking: 3rd Edition , Washington DC: ULI-The Urban Land Institute, 2020, p.16
Theater	Patron	0.30	0.33	seats	Shared Parking: 3rd Edition , Washington DC: ULI-The Urban Land Institute, 2020, p.16
	Employees	0.07	0.07	seats	Shared Parking: 3rd Edition , Washington DC: ULI-The Urban Land Institute, 2020, p.16
Residential	Residents	1.25	1.25	units	Shared Parking: 3rd Edition , Washington DC: ULI-The Urban Land Institute, 2020, p.16
	Guest	0.10	0.15	units	Shared Parking: 3rd Edition , Washington DC: ULI-The Urban Land Institute, 2020, p.16
General Office	Visitors	0.25	0.03	kfs	Shared Parking: 3rd Edition , Washington DC: ULI-The Urban Land Institute, 2020, p.16
	Staff	3.15	0.32	kfs	Shared Parking: 3rd Edition , Washington DC: ULI-The Urban Land Institute, 2020, p.16
Medical Office	Patients	3.00	0.30	kfs	Shared Parking: 3rd Edition , Washington DC: ULI-The Urban Land Institute, 2020, p.16
	Staff	1.60	0.50	kfs	Shared Parking: 3rd Edition , Washington DC: ULI-The Urban Land Institute, 2020, p.16
Bank	Customers	3.50	3.00	kfs	Shared Parking: 3rd Edition , Washington DC: ULI-The Urban Land Institute, 2020, p.16
	Staff	2.50	1.75	kfs	Shared Parking: 3rd Edition , Washington DC: ULI-The Urban Land Institute, 2020, p.16
School	Visitors	1.47	0.00	kfs	Parking Generation: 5th Edition , Washington DC: ITE - Institute of Transportation Engineers, 2019, p.361
	Staff	0.40	0.00	kfs	Parking Generation: 5th Edition , Washington DC: ITE - Institute of Transportation Engineers, 2019, p.361

The Urban Land Institute (ULI), the Institute of Transportation Engineers (ITE), the International Council of Shopping Center (ICSC), the International Parking Institute (IPI), the National Parking Association (NPA), the American Planning Association (APA) and other agencies gather and consolidate these individual studies into peer-reviewed, statistically reliable resources for application in planning studies, such as this one. DESMAN applied the base demand ratios to the proposed program shown in **Table 1**, above.

Adjustments to base demand ratios can be applied to reflect the actual conditions in the project site. These applied factors included adjustments to reflect choice of transportation mode, internal rates of capture, and other local factors. A summary of applied adjustments to base demand ratios are shown in **Table 2**, next page.

Mode adjustments reflect the percentage of users expected to drive themselves to a project, versus arriving by other means. The most recent [2022] American Community Survey (ACS) covering Johnson City Village, New York² and administered by the US Census Bureau, reported that 70.7% of the local populace drove themselves to work in a personal vehicle; the remainder either carpooled (10.9%), worked from home (6.8%), or used other means (4.2%). This is the basis for DESMAN's assumptions regarding mode adjustment specific to the project for employees.

Table 2: Applied Mode and Capture Adjustments

WEEKDAYS									
DAYTIME (6:00 AM - 4:59 PM)									
Land Use	User Group	Base Ratio	Modal Adj.	Capture Adj.	Local Adj.	Project Ratio	Unit		
Retail	Shoppers	2.90	1.00	1.00	0.26	0.75	ksf		
	Employees	0.70	0.74	1.00	0.26	0.13	ksf		
Grocery	Shoppers	4.00	1.00	1.00	0.26	1.04	ksf		
	Employees	0.75	0.74	1.00	0.26	0.14	ksf		
Fast Casual Dining	Diners	15.25	1.00	1.00	0.26	3.97	ksf		
	Employees	2.15	0.74	1.00	0.26	0.41	ksf		
Take-Out/Café	Diners	12.40	1.00	1.00	0.26	3.22	ksf		
	Employees	2.00	0.74	1.00	0.26	0.38	ksf		
Library	Visitors	2.00	1.00	1.00	0.26	0.52	ksf		
	Staff	0.25	0.74	1.00	0.26	0.05	ksf		
Theater	Patron	0.30	1.00	1.00	0.26	0.08	seats		
	Employees	0.07	0.75	1.00	0.26	0.01	seats		
Residential	Residents	1.25	0.84	1.00	0.26	0.27	units		
	Guest	0.10	1.00	1.00	0.26	0.03	units		
General Office	Visitors	0.25	1.00	1.00	0.26	0.07	ksf		
	Staff	3.15	0.74	1.00	0.26	0.60	ksf		
Medical Office	Patients	3.00	1.00	1.00	0.26	0.78	ksf		
	Staff	1.60	0.74	1.00	0.26	0.31	ksf		
Bank	Customers	3.50	1.00	1.00	0.26	0.91	ksf		
	Staff	2.50	0.74	1.00	0.26	0.48	ksf		
School	Visitors	1.47	1.00	1.00	0.26	0.38	ksf		
	Staff	0.40	0.74	1.00	0.26	0.08	ksf		
EVENING (5:00 PM - 12:00 AM)									
Land Use	User Group	Base Ratio	Modal Adj.	Capture Adj.	Local Adj.	Project Ratio	Unit		
Retail	Shoppers	2.90	1.00	1.00	0.26	0.75	ksf		
	Employees	0.70	0.74	1.00	0.26	0.13	ksf		
Grocery	Shoppers	4.00	1.00	1.00	0.26	1.04	ksf		
	Employees	0.75	0.74	1.00	0.26	0.14	ksf		
Fast Casual Dining	Diners	15.25	1.00	1.00	0.26	3.97	ksf		
	Employees	2.15	0.74	1.00	0.26	0.41	ksf		
Take-Out/Café	Diners	12.40	1.00	1.00	0.26	3.22	ksf		
	Employees	2.00	0.74	1.00	0.26	0.38	ksf		
Library	Visitors	2.00	1.00	1.00	0.26	0.52	ksf		
	Staff	0.25	0.74	1.00	0.26	0.05	ksf		
Theater	Patron	0.30	1.00	1.00	0.26	0.08	seats		
	Employees	0.07	0.75	1.00	0.26	0.01	seats		
Residential	Residents	1.25	0.84	1.00	0.26	0.27	units		
	Guest	0.10	1.00	1.00	0.26	0.03	units		
General Office	Visitors	0.25	1.00	1.00	0.26	0.07	ksf		
	Staff	3.15	0.74	1.00	0.26	0.60	ksf		
Medical Office	Patients	3.00	1.00	1.00	0.26	0.78	ksf		
	Staff	1.60	0.74	1.00	0.26	0.31	ksf		
Bank	Customers	3.50	1.00	1.00	0.26	0.91	ksf		
	Staff	2.50	0.74	1.00	0.26	0.48	ksf		
School	Visitors	1.47	1.00	1.00	0.26	0.38	ksf		
	Staff	0.40	0.74	1.00	0.26	0.08	ksf		
WEEKENDS									
DAYTIME (6:00 AM - 4:59 PM)									
Land Use	User Group	Base Ratio	Modal Adj.	Capture Adj.	Local Adj.	Project Ratio	Unit		
Retail	Shoppers	3.20	1.00	1.00	0.47	1.50	ksf		
	Employees	0.80	0.75	1.00	0.47	0.28	ksf		
Grocery	Shoppers	4.00	1.00	1.00	0.47	1.88	ksf		
	Employees	0.75	0.75	1.00	0.47	0.26	ksf		
Fast Casual Dining	Diners	15.00	1.00	1.00	0.47	7.05	ksf		
	Employees	2.10	0.75	1.00	0.47	0.74	ksf		
Take-Out/Café	Diners	12.70	1.00	1.00	0.47	5.97	ksf		
	Employees	2.00	0.75	1.00	0.47	0.70	ksf		
Library	Visitors	1.90	1.00	1.00	0.47	0.89	ksf		
	Staff	0.20	0.75	1.00	0.47	0.07	ksf		
Theater	Patron	0.33	1.00	1.00	0.47	0.16	seats		
	Employees	0.07	0.75	1.00	0.47	0.02	seats		
Residential	Residents	1.25	0.94	1.00	0.47	0.55	units		
	Guest	0.15	1.00	1.00	0.47	0.07	units		
General Office	Visitors	0.03	1.00	1.00	0.47	0.01	ksf		
	Staff	0.32	0.75	1.00	0.47	0.11	ksf		
Medical Office	Patients	0.30	1.00	1.00	0.47	0.14	ksf		
	Staff	0.50	0.75	1.00	0.47	0.18	ksf		
Bank	Customers	3.00	1.00	1.00	0.47	1.41	ksf		
	Staff	1.75	0.75	1.00	0.47	0.62	ksf		
School	Visitors	0.00	1.00	1.00	0.47	0.00	ksf		
	Staff	0.00	0.75	1.00	0.47	0.00	ksf		
EVENING (5:00 PM - 12:00 AM)									
Land Use	User Group	Base Ratio	Modal Adj.	Capture Adj.	Local Adj.	Project Ratio	Unit		
Retail	Shoppers	3.20	1.00	1.00	0.47	1.50	ksf		
	Employees	0.80	0.75	1.00	0.47	0.28	ksf		
Grocery	Shoppers	4.00	1.00	1.00	0.47	1.88	ksf		
	Employees	0.75	0.75	1.00	0.47	0.26	ksf		
Fast Casual Dining	Diners	15.00	1.00	1.00	0.47	7.05	ksf		
	Employees	2.10	0.75	1.00	0.47	0.74	ksf		
Take-Out/Café	Diners	12.70	1.00	1.00	0.47	5.97	ksf		
	Employees	2.00	0.75	1.00	0.47	0.70	ksf		
Library	Visitors	1.90	1.00	1.00	0.47	0.89	ksf		
	Staff	0.20	0.75	1.00	0.47	0.07	ksf		
Theater	Patron	0.33	1.00	1.00	0.47	0.16	seats		
	Employees	0.07	0.75	1.00	0.47	0.02	seats		
Residential	Residents	1.25	0.94	1.00	0.47	0.55	units		
	Guest	0.15	1.00	1.00	0.47	0.07	units		
General Office	Visitors	0.03	1.00	1.00	0.47	0.01	ksf		
	Staff	0.32	0.75	1.00	0.47	0.11	ksf		
Medical Office	Patients	0.30	1.00	1.00	0.47	0.14	ksf		
	Staff	0.50	0.75	1.00	0.47	0.18	ksf		
Bank	Customers	3.00	1.00	1.00	0.47	1.41	ksf		
	Staff	1.75	0.75	1.00	0.47	0.62	ksf		
School	Visitors	0.00	1.00	1.00	0.47	0.00	ksf		
	Staff	0.00	0.75	1.00	0.47	0.00	ksf		

Capture adjustments – the percentage of persons already on the project site for one reason, but patronizing another business – is applied so that demand associated with one land use is not credited against another land use during the modeling process. For example, the office worker who goes to Starbucks on break does not generate any new or additional parking demand by getting a latte. If that employee's parking demand is already 'credited' to his office, the capture adjustment to Starbucks assures

² Census Tract S0802 in Johnson City village, New York.

that his parking demand is NOT associated with the coffee shop, i.e. “double counting” him. Some of these reductions will remain fairly stable, regardless of the day of week or time of day, while others will fluctuate according to time of day or day of the week. Within the proposed project site, DESMAN assumed that the largest ‘captive population’ would be hotel guests, area employees or project residents who might also patronize retail stores, restaurants, or health clubs onsite without necessarily generating any additional trips or resulting parking demand. Due to lack of 3rd party documentation, the consulting team elected not to apply any time of capture adjustment, leaving it at 1.0.

Local adjustments are applied based on an existing, occupied land use program and observed occupancy conditions; they calibrate results further to align them with local dynamics. Each sub-area has a different local adjustment ratio based on its parking needs. This process is addressed later in the report.

The final factor comprising the model is the adjustment to reflect for variances for temporal and seasonal *presence*. *Presence* is the expression of parking demand for specific users and land uses according to time of day and time of year. Presence is expressed as a percentage of peak potential demand modified for time of day or year.

For example, at a parking industry standard of 4.0 spaces per thousand feet of gross floor area, 5,000 square feet of general retail space has a peak parking demand equal up to 20 spaces. However, this demand is influenced by the hours of operation. At 3:00 AM, a retail store is unlikely to project any parking demand at all. Additionally, parking demand is influenced by the time of year. Traditionally, retail stores are busiest as the winter holidays approach and least busy in January and February, when fewer people shop. Therefore, parking demand associated with a retail store also decreases.

Presence becomes a significant factor in a mixed-use environment like the Village because it allows different land uses to share the same parking supply. For example, if an office building is placed next to a business hotel, summing the peak projected demand of each of the land uses would result in parking supply substantially larger than necessary, as the business hotel is largely empty when the office building is occupied and vice versa. However, applying presence factors to the peak demand projections to adjust for hours of operation and use trends, the owner actually needs to provide only a fraction of the spaces needed for the combined land uses to adequately support both the hotel and the office building. The assumption is that demand for the hotel will peak in overnight, while demand for the office space will peak during standard business hours. These presence trends of parking demand for these land uses are complimentary and allow for some sharing of the same spaces, reducing total peak demand.

Variations for time of day and time of year for weekends (Saturdays) were also calculated for the Village and applied to the model. The majority of presence adjustments were taken from the ULI’s **Shared Parking: 3rd Edition**. Presence factors were applied to projections of gross demand and used to generate hourly parking demand projections for a typical weekday and weekend day throughout the year. DESMAN used these projections to isolate the peak hour in each month. The applied presence adjustments for time of year are shown below in **Table 3** on the next page, and time of day presence adjustments are included as **Tables 4** (weekdays) and **5** (weekends) on the following pages.

Table 3: Applied Monthly Presence Factors

Land Use	User Group	January	February	March	April	May	June	July	August	September	October	November	December	Holidays
Retail	Shoppers	59%	61%	69%	67%	72%	82%	90%	83%	76%	68%	76%	100%	85%
	Employees	69%	71%	79%	77%	82%	82%	80%	83%	76%	78%	86%	100%	95%
Grocery	Shoppers	93%	86%	94%	92%	97%	93%	96%	95%	92%	95%	95%	100%	95%
	Employees	100%	96%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Fast Casual Dining	Diners	86%	86%	97%	95%	100%	98%	100%	100%	93%	97%	92%	96%	95%
	Employees	96%	96%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Take-Out/Café	Diners	54%	59%	71%	88%	88%	99%	94%	86%	67%	77%	96%	97%	100%
	Employees	92%	85%	93%	92%	97%	93%	95%	95%	90%	93%	95%	100%	98%
Library	Visitors	75%	75%	80%	85%	90%	90%	90%	90%	95%	95%	90%	65%	50%
	Staff	85%	85%	85%	90%	95%	95%	90%	95%	100%	100%	95%	65%	45%
Residential	Residents	100%	100%	100%	100%	100%	100%	95%	95%	100%	100%	100%	100%	100%
	Guest	100%	100%	100%	100%	100%	100%	95%	95%	100%	100%	100%	100%	100%
General Office	Visitors	100%	100%	100%	100%	100%	100%	95%	95%	100%	100%	100%	100%	80%
	Staff	100%	100%	100%	100%	100%	100%	95%	95%	100%	100%	100%	100%	80%
Medical Office	Patients	100%	100%	100%	100%	100%	100%	95%	95%	100%	100%	100%	10%	80%
	Staff	100%	100%	100%	100%	100%	100%	95%	95%	100%	100%	100%	100%	80%
Bank	Customers	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	10%	100%
	Staff	100%	100%	100%	100%	100%	100%	95%	95%	100%	100%	100%	100%	80%
School	Visitors	100%	95%	100%	95%	100%	70%	0%	0%	100%	100%	100%	100%	0%
	Staff	100%	100%	100%	100%	100%	90%	0%	0%	100%	100%	100%	100%	0%

Table 4: Applied Daily Presence Factors for a Weekday

Land Use	User Group	6:00 AM	7:00 AM	8:00 AM	9:00 AM	10:00 AM	11:00 AM	12:00 PM	1:00 PM	2:00 PM	3:00 PM	4:00 PM	5:00 PM	6:00 PM	7:00 PM	8:00 PM	9:00 PM	10:00 PM	11:00 PM	12:00 AM
Retail (Typical)	Shoppers	1%	5%	15%	35%	65%	85%	95%	100%	95%	90%	85%	90%	90%	90%	80%	50%	30%	10%	0%
	Employees	10%	15%	25%	45%	75%	95%	100%	100%	100%	100%	100%	100%	100%	100%	90%	60%	40%	20%	0%
Retail (December)	Shoppers	1%	5%	15%	30%	55%	75%	90%	100%	100%	100%	95%	85%	80%	75%	65%	50%	30%	10%	0%
	Employees	10%	15%	25%	45%	75%	95%	100%	100%	100%	100%	100%	100%	100%	100%	90%	60%	40%	20%	0%
Retail (Holidays)	Shoppers	1%	5%	10%	20%	40%	65%	90%	100%	100%	100%	95%	85%	70%	55%	40%	25%	15%	5%	0%
	Employees	10%	15%	25%	45%	75%	95%	100%	100%	100%	100%	100%	100%	100%	100%	90%	60%	40%	20%	0%
Grocery	Shoppers	5%	20%	30%	50%	60%	67%	85%	90%	95%	97%	100%	100%	100%	85%	55%	35%	20%	5%	5%
	Employees	20%	30%	40%	80%	90%	100%	100%	100%	100%	100%	100%	100%	80%	50%	35%	20%	20%	20%	20%
Fast Casual Dining	Diners	5%	10%	20%	30%	55%	85%	100%	100%	90%	60%	55%	60%	85%	80%	50%	30%	20%	10%	5%
	Employees	20%	20%	30%	40%	75%	100%	100%	100%	95%	70%	60%	70%	90%	90%	60%	40%	30%	20%	20%
Take-Out/Café	Diners	25%	50%	60%	75%	85%	90%	100%	90%	50%	45%	45%	75%	80%	80%	80%	60%	55%	50%	25%
	Employees	50%	75%	90%	90%	100%	100%	100%	100%	100%	75%	75%	95%	95%	95%	95%	80%	65%	65%	35%
Library	Visitors	0%	0%	0%	100%	100%	98%	98%	78%	72%	65%	70%	79%	60%	50%	40%	0%	0%	0%	0%
	Staff	0%	10%	50%	100%	100%	100%	100%	100%	100%	100%	100%	90%	75%	50%	20%	10%	0%	0%	0%
Theater	Patron	0%	0%	0%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	25%	100%	100%	0%	0%	0%
	Employees	0%	10%	10%	20%	20%	20%	30%	30%	30%	30%	30%	30%	100%	100%	100%	100%	30%	10%	5%
Residential	Residents	90%	85%	80%	75%	70%	69%	68%	67%	66%	55%	60%	55%	50%	55%	65%	75%	85%	90%	100%
	Guest	5%	10%	20%	20%	20%	20%	20%	20%	20%	20%	20%	40%	60%	100%	100%	100%	100%	80%	50%
General Office	Visitors	0%	1%	20%	60%	100%	45%	15%	45%	95%	45%	15%	10%	5%	2%	1%	0%	0%	0%	0%
	Staff	3%	15%	50%	90%	100%	100%	85%	85%	95%	95%	85%	60%	25%	15%	5%	3%	1%	0%	0%
Medical Office	Patients	0%	10%	40%	85%	100%	100%	75%	60%	95%	90%	80%	35%	25%	10%	5%	0%	0%	0%	0%
	Staff	0%	20%	60%	100%	100%	100%	100%	100%	100%	100%	100%	100%	75%	40%	25%	0%	0%	0%	0%
Bank	Customers	0%	0%	50%	90%	100%	50%	50%	50%	70%	50%	80%	100%	0%	0%	0%	0%	0%	0%	0%
	Staff	0%	0%	60%	100%	100%	100%	100%	100%	100%	100%	100%	100%	0%	0%	0%	0%	0%	0%	0%
School	Visitors	0%	50%	100%	70%	20%	20%	50%	40%	20%	100%	40%	30%	20%	0%	0%	0%	0%	0%	0%
	Staff	10%	70%	100%	100%	100%	100%	100%	100%	100%	100%	60%	30%	20%	5%	1%	0%	0%	0%	0%

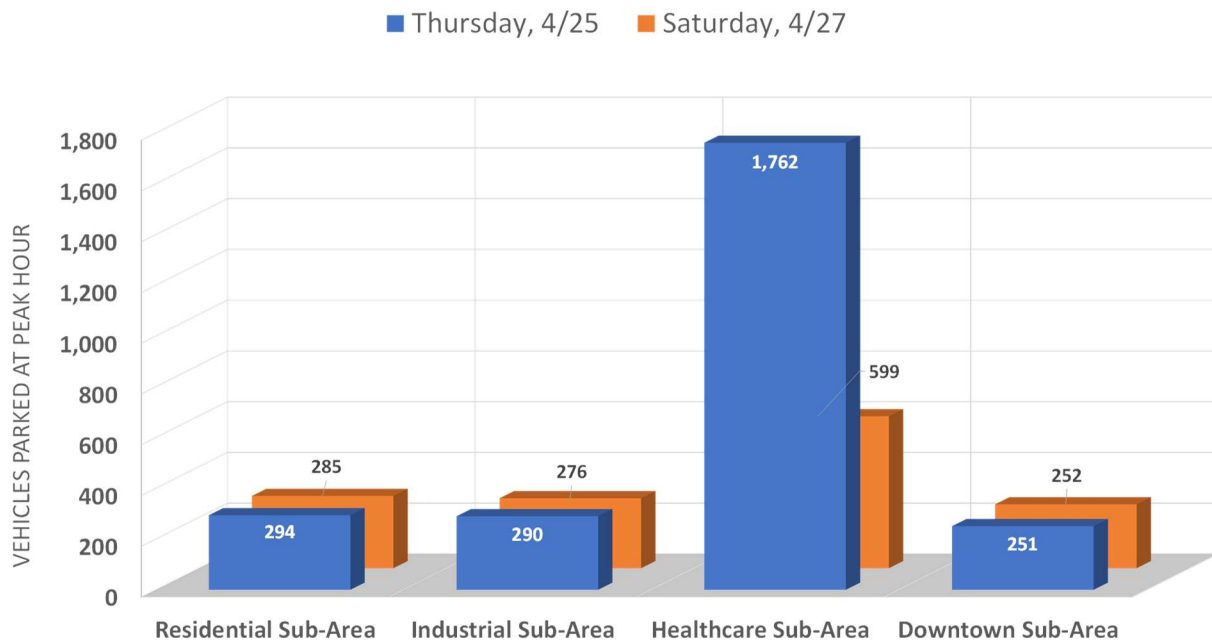
Table 5: Applied Daily Presence Factors for a Weekend

[illegible]

In projects still in the planning or design stage, adjusting base ratios to reflect mode choice, capture and presence factors completes the process. In projects in development, where one or more phases have been complete, the model can be further calibrated to align with local conditions not addressed by the adjustments for mode choice, capture and presence. This is done by performing field observations, and recording those conditions, inputting the program in place, producing projections, comparing them to field data, and adjusting the model to align with observed occupancy. The result of this process is a more refined, accurate, and project-specific set of projections of future need which result in a more efficient parking supply.

An initial series of parking occupancy counts were performed across the study area on Thursday, April 25th and Saturday, April 27th, of this year. The counts were planned around the busy times of the day in anticipation of higher than typical activity levels. Counts were executed at different times for each zone to capture peak times on both days. Data was collected on a facility-by-facility basis during multiple-pass counts across the whole of the study area at each interval. It's important to remember that each peak count was at different times for each zone. A distilled record of the peak occupancy levels during these two days is shown below in **Figure 1**.

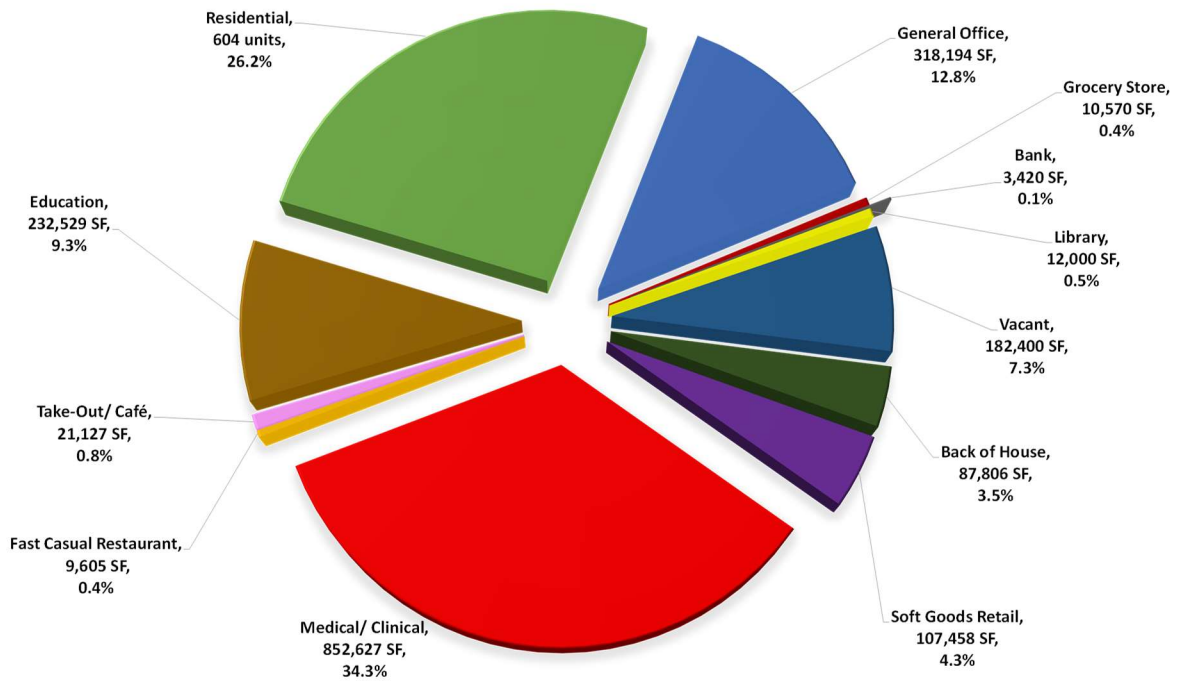
Figure 1: Observed Peak Hour Parking Occupancy Summary by Sub-Area and Day of Week



These counts were used as a baseline for understanding local conditions and parking occupancy of the Village; the peak hour occupancy counts were used to 'calibrate' the model by comparing the outputs from the model using the land use program in place against what was observed in the field. The active land use program during the April counts is illustrated in **Figure 2** on the following page. This land use inventory was developed from Broome County tax records for each property within the study, checked against field observations and/or other resources to validate the reported square footage, number of residential units, number of rooms, current land use, etc. were accurate and consistent with current conditions. The data from this inventory was then entered into the model to render a result which was

compared to recorded peak parking occupancy for each sub-area. Where a discrepancy between model output and observed occupancy was identified, a local adjustment factor was applied to calibrate the model to reflect local conditions.

Figure 2: Village of Johnson City Land Uses Within Defined Study Area (April 2024)



When calibrating a model (i.e., applying the local adjustment) to align with actual conditions, it is very common for the model to generate demand projections which are greater than actual observed conditions as the base demand ratios are based on an 85th percentile standard; this means that, of all the land uses studied to render the demand ratio, 85% generated demand less than the recommended ratio and only 15% exhibited demand equal to or greater than the demand ratio. In simple terms, this means the base demand ratios are engineered to be inherently conservative and are intended to represent a level of demand which is exceptionally high, not average or typical.

In regards to the models that were developed for each sub-area, application of local adjustment factors to calibrate the model to observed peak conditions was as follows:

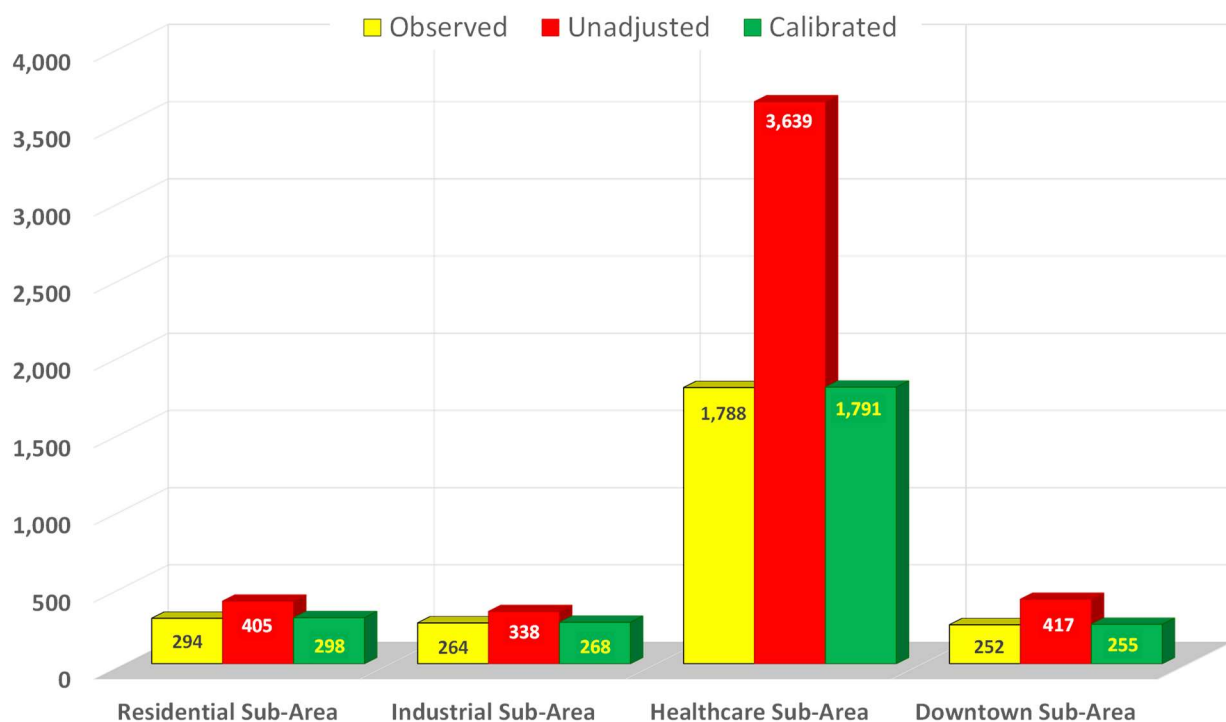
1. In the Downtown Sub-Area, the observed peak occupancy was 252 vehicles on a weekend. The unadjusted model projected there should be 417 vehicles present, based on land use data. A local adjustment of 0.61 aligned the model to project peak hour demand at 255 vehicles.
2. In the Healthcare Sub-Area, the observed peak occupancy was 1,788 vehicles on a weekday³. The unadjusted model projected there should be 3,639 vehicles present, based on land use data. A local adjustment of 0.492 aligned the model to project peak hour demand at 1,791 vehicles.

³ This included the peak observed occupancy of 1,762 vehicles within the sub-area at 9:00 AM on Thursday, 4/25 plus 26 Wilson Medical Center vehicles which were parked in the Industrial West Sub-Area.

3. In the Industrial Sub-Area, the observed peak occupancy was 264 vehicles on a weekday⁴. The unadjusted model projected there should be 338 vehicles present, based on land use data. A local adjustment of 0.79 aligned the model to project peak hour demand at 268 vehicles.
4. In the Residential Sub-Area, the observed peak occupancy was 294 vehicles on a weekday. The unadjusted model projected there should be 405 vehicles present, based on land use data. A local adjustment of 0.74 aligned the model to project peak hour demand at 298 vehicles.

Figure 3 below shows the changes in model output before and after calibration (local adjustments) to align the model with observed conditions.

Figure 3: Comparison of Unadjusted and Calibrated Projections to Observed Conditions



Future Needs Projections

Future parking needs for each sub-area were measured and reported upon using three benchmarks:

1. *Existing Conditions* identified parking demand, supply, and adequacy at the busiest hour of the busiest day of the year according to the parking demand model assuming the land use program in place when occupancy counts were conducted in April 2024. It should be noted that Existing

⁴ Peak observed occupancy was actually 290 vehicles, but this included 26 vehicles associated with the Wilson Medical Center (located in the Healthcare Sub-Area) parked in a surface lot located in the Industrial West Sub-Area. These 26 vehicles were 'credited' to the Healthcare Sub-Area and 'deducted' from the Industrial West Sub-Area to match occupancy with the driving land use.

Conditions are NOT synonymous with occupancy counts because the dates and times when occupancy counts were conducted were not necessarily periods of peak demand on annualized basis. The advantage of using the parking demand modelling methodology applied by DESMAN in this analysis is that it provides the consultant with the ability to identify when the busiest hour of the busiest day of the year occurs for each sub-area exclusive of the occupancy counts, while still assuring that the model is calibrated to local conditions, and therefore accurate.

2. *Absorption* assumes that the all the land uses which were vacant at the time of field occupancy counts are absorbed by the market and fully occupied. In this benchmark, these land uses are entered into the model in addition the land uses occupied during field exercises to reflect the near-term impact of those existing spaces being reactivated within the market. Unless otherwise communicated to DESMAN, we assume that the formerly vacant land uses will be reactivated again as their original land uses (e.g., vacant retail space returns as a retail store, empty restaurant is reactivated as a new eatery, etc.) It should be noted that the Absorption benchmark is a compounding projection, building off the projected demand from Existing Conditions with the assumption that any supply shortfalls or overruns indicated in the prior benchmark have not been addressed prior application of the vacant space to the model.
3. *Emerging Development* applies to all the new projects and development in the pipeline as identified by the Village of Johnson City and expands upon conditions projected under the *Absorption* benchmark without assumption of mitigation. The focus is again on project peak hour parking demand relative to estimated parking supply.

Results of each benchmark analysis are presented in the aggregate (i.e., across the entirety of the study area) as well as facility-by-facility. Aggregate presentations are in table form, comparing existing and/or planned parking supply with projected demand to indicate whether the sub-area as a whole is likely to experience a shortfall.

Facility-by-facility presentations are as figures with supporting text to explain key findings. These graphics present total utilization in terms of 'low' utilization (50% or less of the total parking supply within the block being used) in **blue**, 'moderate' utilization (between 50% and 69% of the total supply within the block occupied) in **green**, 'growing' utilization (between 70% and 79% of the total supply within the block filled) in **yellow**, 'high' utilization (between 80% and 89% of the total supply within the block filled) in **orange**, ('major' (90% to 100% of the total parking capacity of the block filled) in **red**, and lastly 'over utilized' (over 100% of the total parking capacity of the block filled) in **purple**.

It should be noted that those facilities showing parking demand exceeding parking supply (e.g., those in **purple**) may not in actual practice contain more vehicles than spaces; in many cases, those excess vehicles may migrate to the nearest available open space. The more critical consideration is whether those facilities or block faces are abutted by other parking areas with available capacity; if not, a parking shortfall may be identified within a sub-area which has, on the balance, excess parking supply across its whole. The **Exhibits** at the end of the document will include tables showing facility-by-facility results for each sub-area and benchmark for the reader's reference.

Vacant Space and Absorption

The table on the following page identifies those properties that were unoccupied at the time of field counts.

Table 6: Vacant Space (as of August 2024)

Sub-Area	Address	Description	Existing Vacant s.f. GFA	OCCUPIED LAND USE					PARKING IMPACT ^{3,4,5}	
				Retail (s.f. GLA)	Residential (units)	Office (s.f. GFA)	Medical (s.f. GFA)	Industrial (s.f. GFA)	Gross ¹ (spaces)	Shared ² (spaces)
Downtown	257 Main St	Vacant Retail	6,000	6,000					14	13
Downtown	253 Main St	Vacant Retail	6,000	6,000					14	13
Downtown	251 Main St	Vacant Retail	3,000	3,000					7	6
Downtown	247 Main St	Vacant Retail	3,000	3,000					7	6
Downtown	15 Avenue B	Vacant Retail	14,374	14,374					33	30
Downtown	205B Main St	Vacant Retail	1,560	1,560					4	3
Downtown	19 Avenue B	Vacant- Former Warehouse	40,428					40,428	43	21
Downtown	181 Main St	Vacant-Former Body Shop	9,255					9,255	10	5
Downtown	24 Avenue A	Vacant Retail	1,336	1,336					3	2
Downtown	252 Main St	Vacant Retail	1,570	1,570					4	3
Downtown	258 Main St	For Lease- Office Space	3,634			3,634			6	5
Downtown	263 Main St	For Lease- Office Space	5,723			5,723			9	7
Downtown	218 Main St	Vacant Retail	3,600	3,600					8	7
Downtown	200 Main St	Vacant Retail	14,679	14,679					34	31
Downtown	214 Main St	Vacant Retail	3,600	3,600					8	7
Downtown	126 Main St	Vacant Office	9,166			9,166			14	12
Downtown	18 Park St	Vacant Office	3,662			3,662			6	5
Downtown	5-11 Avenue C	Vacant Apartments	12,024		18				18	9
Healthcare	12-17 Baldwin St	UHS Building	3,418				3,418		7	7
Healthcare	272-278 Main St	Vacant Retail	10,032	10,032					19	12
Healthcare	290 Main St	Vacant Retail	4,080	4,080					8	5
Healthcare	284 Main St	Vacant Retail	3,010	3,010					6	3
Healthcare	282 Main St	Vacant Retail	4,920	4,920					9	5
Healthcare	80 Arch St	Vacant Office	1,680			1,680			2	2
Residential	26 Crocker Ave	8 Apartments - 1 for rent	720		1				1	1
Residential	59 Allen St	12 Apartment- 1 for rent	600		1				1	1
Residential	207 Grand Ave	Vacant Retail	2,762	2,762					8	6
Residential	213 Grand Ave	Vacant Retail	1,530	1,530					5	4
Residential	205 Grand Ave	Vacant Auto Shop	1,569					1,569	2	0
Residential	5 Endicott Ave	Vacant- Former Warehouse	10,192					10,192	13	0
Residential	139 Grand Ave	Vacant- Former Health Building	5,952				5,952		18	0
GRAND TOTAL			193,076	85,053	20	23,865	9,370	61,444	341	231

Notes:

1. Gross projected demand shows each land use at its absolute peak as a standalone property with no influences via time of day or time of year presence.
2. Shared project demand shows peak hour demand for all vacancies at the defined peak hour for the sub-area, factoring in variances in demand according to time of day and year.
3. Peak Hour in the Downtown Sub-Area is projected to occur at 1:00 PM on a December weekday.
4. Peak Hour in the Healthcare Sub-Area is projected to occur at 11:00 AM on a November weekday.
5. Peak Hour in the Residential Sub-Area is projected to occur at 10:00 PM on a December Saturday.

As the preceding table indicates, the vacant spaces identified were located in the Downtown, Healthcare, and Residential Sub-Areas; no vacant properties were identified or assumed within the Industrial Sub-Areas. As independent and stand-alone land uses, these vacant properties could require up to 341 parking spaces to support. Factoring in variations in parking demand by land use according to time of day, day of the week, and time of year when each sub-area experiences peak demand, these properties will require 231 parking spaces to support. This data was entered into the model in addition to the existing land use inventory to render projections under the Absorption benchmark. No information was provided as to how quickly these properties are likely to be reoccupied within the market, but DESMAN would assume in the next 12 to 36 months.

Emerging Developments

The emerging developments found in the study area were researched and confirmed via the Downtown Revitalization Strategic Investment Plan and through conversations with Village of Johnson City Planning Department staff. They include developments that are currently under construction and those that are approved and permitted future developments. The identified emerging developments appears to fall into one of five general categories as follows:

- **Renovation** projects were focused on improving the exterior, interior, and/or critical systems within a particular building. In some cases, the property was vacant and accounted for among the vacant properties to be absorbed; in other cases, the property was already occupied with existing tenants. While these projects may draw in additional vehicles during the renovation process and will assuredly improve the appeal and vitality of downtown when completed, DESMAN did not assume any permanent new parking demand associated with these properties.
- **Improvement** projects were focused on improving parks, public spaces, wayfinding, pedestrian cross-walks, and streetscapes to enhance the environment in downtown Johnson City. As with Renovations, there may be an ancillary increase in parking demand during the execution phase of each project, but DESMAN does not believe these projects will generate any permanent parking demand in and of themselves.
- **Conversion** projects propose to activate formerly dormant spaces within existing buildings with introduction of new land uses. These spaces were not accounted for as 'vacant' within the prior benchmark as the buildings were often already occupied. These projects did present an opportunity to create new parking demand within the sub-area and were included in DESMAN's Emerging Developments benchmark analysis.
- **New Development** involved large-scale conversion of a formerly dormant building into new land uses and wholesale create of new buildings. DESMAN factored the impact of these projects into our projections of future parking need for each sub-area.

All emerging development are listed by sub-area, identifier, address, and type of development and described in **Table 7** and shown in **Figure 4** on the following pages. Those emerging development expected to project permanent new parking demand when completed include the following:

- The **Firehouse Stage Addition** (*Map ID "2"*) at 48 Willow St, in the Downtown Sub-Area is improving 25,000 square footage which will provide 250 additional theater seats on renovated the top floors. The facility will share the existing surface parking supply adjacent to the building

and could generate demand during a performance for up to 125 vehicles, but at the peak hour on a weekday will need just two spaces most days.

- **The Homesteads on Grand**, (*Map ID "3"*), in the Residential Sub-Area is an empty lot that will be developed into a mixed-use building with 72 residential apartments totaling approximately 64,000 square feet along with 6,200 square feet of new retail space. The existing lot on-site contains 150 spaces and the new development will add an additional 8 parking spaces to accommodate the residential demand. Peak hour demand for the project is projected to be for 87 parking spaces.
- In the Healthcare Sub-Area, improvements to the **Century Building** (*Map ID "10"*) will create nearly 5,000 square feet of commercial space to support Binghamton Brewing Company operations that will need up to 32 parking spaces at the peak hour. This will be satisfied by the private surface parking lot adjacent to the building.
- In the Industrial West Sub-Area **the Old High School Building**, (*Map ID "11"*), is being redeveloped into 62 residential apartments with 10,000 square feet of potential retail or office space. This building already has a 147-space surface parking lot to support the project and DESMAN projects the new land uses will need 51 spaces at the peak hour.
- Conversion of the historical building at **20 Willow Street** (*Map ID "14"*) will result in the conversion of this former single-family home into office/commercial space with one new residential unit attached. DESMAN estimates the project will need up to three parking spaces to support it at the peak hour, which will be provided by the existing driveway on the property and available on-street supply in the area.
- Conversion of the **Endicott Johnson Fire Station** (Map ID "15") will result in new residential units and reinvigorated commercial space within the Downtown Sub-Area along Avenue B. DESMAN estimates this project may need as many as eight parking spaces at the peak hour, which will be provided in the private lot attached to the property.

DESMAN assumes the impact of these projects will likely be felt within the next 24-60 months.

Figure 4: Emerging Developments



Table 7: Emerging Developments

Map ID	Sub-Area	Property Identifier	Property Address	Type of Development	Estimated Completion	NEW LAND USES						PARKING			
						Retail (GLA)	Theater (seats)	Restaurant (GLA)	Office (GFA)	Residential Units	Residential (GFA)	New Supply	Displaced Supply	Peak Hour Demand ¹⁷	Surplus/ (Deficit)
1	Downtown	Hancock Building ¹	214 Main St	Renovation	Spring 2026							0	0	0	0
2	Downtown	Firehouse Stage Addition ²	46 Willow St	Conversion	Summer 2027		250					0	0	(2) ¹⁸	(2)
3	Residential	Homesteads on Grand ³	333 Grand Ave	New Development	Spring 2027	6,200				72	63,878	158	(150)	(87) ¹⁹	(79)
4	Downtown	New Century Building ⁴	254 Main St	Renovation	Fall 2026							0	0	0	0
5	Downtown	EJ Theme/Jenison Park ⁵	115 Main St/55 Willow St	Improvement	Summer 2027	-						0	0	0	0
6	Mixed	Small Project Fund	TBD ⁶	Renovation	Summer 2027	-						0	0	0	0
7	Mixed	Streets & Gateways	Various ⁷	Improvement	Summer 2027							0	0	0	0
8	Downtown	Willbrow Alley Project ⁸	238-258 Main St	Improvement	Summer 2026							0	0	0	0
9	Healthcare	HCA Facility Renovations ⁹	18 Broad St	Renovation	Fall 2025							0	0	0	0
10	Healthcare	BBC/Century Building ¹⁰	135 Baldwin St	Conversion	Winter 2025			4,860				0	0	(32) ²⁰	(32)
11	Industrial	Old High School ¹¹	435 Main St	New Development	Summer 2027	10,000				62	70,000	0	0	(51) ²¹	(51)
12	Residential	M&B Perinatal Network Bldg ¹²	346 Grand Ave	Renovation	Summer 2025							0	0	0	0
13	Downtown	Jupiter Games ¹³	240 Main St	Renovation	Summer 2027	-						0	0	0	0
14	Downtown	Historical Mixed-Use Building ¹⁴	20 Willow St	Conversion	Summer 2028	-			1,319	1	1,000	0	0	(3) ¹⁸	(3)
15	Downtown	Endicott Johnson Fire Station ¹⁵	15 Avenue B	Conversion	Fall 2026	2,500				6	7,500	0	0	(8) ¹⁸	(8)
16	Downtown	IBEW Local 10 ¹⁶	271 Main St	Renovation	Summer 2027				-			0	0	0	0
TOTAL						18,700	250	4,860	1,319	141	142,378	158	(150)	(183)	(175)

Notes:

- Renovation of an existing 2-story, 7,200 SF mixed-use building - **no new parking demand projected**
- Existing building includes a 140-seat theater and 3 floors of empty space (cannot meet building requirements). Revisions and expansions could unlock 25,000 SF of space for a new theater, rehearsal space, etc.
- New development includes 72 affordable apartments and new daycare center
- Internal and external rehabilitation of existing mixed-use building - **no new parking demand projected**
- Development of new park, renovation of existing park, improvement to cross walks and wayfinding, plus new public art installations - **no new parking demand projected**
- Proposed projects include "blade" signs for downtown businesses, façade/commercial space/ roof renovations for 13 buildings along Main St, Grand Ave, Broad St, Willow St, and Cleveland Ave - **no new demand parking demand projected**
- Improvements to sidewalks, crosswalks, streetscapes, etc. to improve pedestrian connections and walkability - **no new parking demand projected**
- Improvements to convert vehicle accessway to 7,000 SF pedestrian pathway - **no new parking demand projected**
- Improvements and repairs to existing building to improve functionality - **no new parking demand projected**
- 4,860 SF expansion to existing Binghamton Brewing Company building
- The 100,000 SF building, which already contains some commercial space, will undergo conversion of 70,000 SF of unused space into 62 residential units. The project will use the existing surface lot for parking.
- Upgrading HVAC system and enhancing building frontage - **no new parking demand projected**
- Renovations to the building's interior and exterior - **no new parking demand projected**
- Conversion of a single-family home to office space, one residential unit, and additional leasable space
- Conversion into grade-level retail and restaurant with upper story residential.
- Cosmetic renovations and improvements - **no new parking demand projected**
- As calculated by DESMAN's model specific to each Sub-Area, at the busiest hour of the busiest day of the year (e.g., "Peak Hour").
- Peak Hour in the Downtown Sub-Area is projected to occur at 1:00 PM on a December Weekday.
- Peak Hour in the Residential Sub-Area is projected to occur at 10:00 PM on a December Saturday.
- Peak Hour in the Healthcare Sub-Area is projected to occur at 11:00 AM on a November weekday.
- Peak Hour in the Industrial Sub-Area is projected to occur at 10:00 AM on a June weekday.

Residential Sub-Area

The highest observed occupancy in the Residential Sub-Area was recorded at 10:00 AM on Thursday, April 25, 2024 with 292 vehicles parked in 1,372 spaces for an overall utilization rate of 21%.

However, the parking demand model developed for this sub-area projects peak hour demand under Existing Conditions occurs at 10:00 PM on a December Saturday, when 409 vehicles are parked, resulting in a 30% utilization rate across the study area. This is roughly 40% higher than observed peak occupancy.

Figure 5: Residential Sub-Area Existing Conditions



Across the sub-area, the majority of on-street parking is less than 60% utilized with select block faces slightly more used or parked to capacity. Most off-street parking lots are less than 60% utilized with the exception of a handful of private parking lot which were slightly more utilized, but never exceeded 90% of their supply.

With limited vacant space open currently in the Residential Sub-Area, total parking demand is only projected to increase by roughly 3% under the Absorption benchmark. Peak demand is projected to occur at 10:00 PM on December Saturday when 420 vehicles will occupy 31% of the total supply across the area (1,372 spaces).

In terms of impacts, as shown in **Figure 6** on the following page, there are nominal increases in utilization along Crocker Avenue, Allen Street, and Grand Avenue between Baldwin and Willow Streets in response to vacant residential units and commercial space being reoccupied. The on-street parking along Grand Avenue between Charles Street Baldwin Street continues to be parked to capacity and other select block faces are filled to more than 60% of their capacity by less than 79%. Off- Street parking facility utilization is unchanged between the Existing Conditions and Absorption benchmarks.

Figure 6: Residential Sub-Area Absorption Conditions



The only emerging development within the sub-area is the Homesteads on Grand, which will displace the 150-space private lot at 346 Grand Avenue. This lot was unoccupied during field observations and assumed to remain that way until the proposed development is complete, so the displacement of supply will not result in displacement of demand.

The project will introduce 158 parking spaces to support 72 residential units and 6,200 square feet of commercial space, increasing the total supply across the area by eight spaces from 1,372 to 1,340 total spaces. Peak hour demand will increase by 21% over the prior benchmark, increasing from 420 to 508 spaces.

Based on the model developed by DESMAN, demand from the project will be 87 spaces at the peak hour (10:00 PM on a December Saturday). This will not appreciably change utilization on the parcel or in any adjacent areas from the Absorption benchmarks as shown in **Figure 7**.

Figure 7: Residential Sub-Area Emerging Development Conditions



Projected parking demand, utilization, and adequacy across the Residential Sub-Area for each benchmark are summarized in **Table 8**.

Table 8: Projected Total Parking Demand and Adequacy Across the Residential Sub-Area

Type of Parking	Supply	Observed		Existing Peak		Absorption		Emerging Devts	
		Thurs 4/25 @ 10:00 AM		Dec Sat @ 10:00 PM		Dec Sat @ 10:00 PM		Dec Sat @ 10:00 PM	
		Occ	Util	Occ	Util	Occ	Util	Occ	Util
Off-Street	647	108	17%	151	23%	151	23%	239	36%
On-Street	725	184	25%	258	36%	269	37%	269	37%
TOTAL	1,372	292	21%	409	30%	420	31%	508	37%
Available Spaces =		1,080		963		952		872	

Between December 1st and March 31st each year, the Village of Johnson City institutes an Alternate Side Street Parking program which bans parking on the side of the street with even numbered addresses on odd days and parking on the street with odd numbered addresses on even days. This is done to facilitate snow removal and is in effect around the clock, with conversions occurring every day at 5:00 PM.

This program applies to all public streets with exception of 'Red-Line' streets which have parking only on one side of the roadway. This policy applies to the following streets within the Residential Sub-Area: Crocker Avenue, sections of Corliss Avenue, Park Place, Grand Avenue, sections of St. Charles Street, Baldwin Street, Johnson Street, Custer Avenue, and Main Street Terrace.

This program does effectively reduce the capacity along certain two-way streets within the Residential Sub-Area, but the rate of utilization along these streets is generally below 60% of supply, indicating that even with half the capacity absent, there should still be adequate parking to accommodate demand.

Industrial Sub-Area

The highest observed occupancy in the Industrial Sub-Areas was recorded at 8:00 AM on Thursday, April 25, 2024 with 290 vehicles parked in 1,045 spaces for an overall utilization rate of 28%.

However, the parking demand model developed for this sub-area projects peak hour demand under Existing Conditions occurs at 10:00 AM on a June weekday, when 555 vehicles are parked, resulting in a 53% utilization rate across the study area. This is roughly 92% higher than observed peak occupancy.

Under Existing Conditions, surface parking lots supporting one of the UHS medical office buildings in the Industrial West Sub-Area was projected to operate near capacity and elevated utilization rates were forecast for the lots servicing the Women's OBGYN Association building, the UHS Pharmacy, the Walgreens, and the UHS Employee Remote Lot. In contrast, only the surface lot supporting the Southern Tier Auto Care Lot is projected to be highly used, as shown in **Figure 8** on the following page. As the figure shows, all of the limited on-street parking is utilized to less than 70% of capacity.

DESMAN did not identify any vacant space within the Industrial Sub-Areas, so there is no projected change from the Existing Conditions to Absorption benchmarks. The impact of the Old High School conversion project is expected to drive up total demand across the sub-areas by just over 9%, with a projected peak demand for 607 spaces at 10:00 AM on a June weekday under the Emerging Conditions benchmark, resulting in an overall utilization rate of 58% against the sub-area parking supply of 1,045 spaces as shown in **Figure 9**, next page.

[illegible]

Figure 9: Industrial Sub-Area Emerging Developments Conditions



Projected parking demand, utilization, and adequacy across the Industrial Sub-Area for each benchmark are summarized in **Table 9** which shows that even at peak, there will still be excess parking spaces across the sub-areas.

Table 9: Projected Total Parking Demand and Adequacy Across the Industrial Sub-Area

Type of Parking	Supply	Observed		Existing Peak		Absorption		Emerging Devts	
		Thurs 4/25 @ 8:00 AM		June Wkdy @ 10:00 AM		June Wkdy @ 10:00 AM		Jun Wkdy @ 10:00 AM	
		Occ	Util	Occ	Util	Occ	Util	Occ	Util
Off-Street	999	279	28%	527	53%	527	53%	579	58%
On-Street	46	11	24%	28	61%	28	61%	28	61%
TOTAL	1,045	290	28%	555	53%	555	53%	607	58%
Available Spaces =		755		490		490		438	

With regards to Alternate Side Street Parking program impacts, the relative small supply of on-street parking within the sub-area and the fact only two streets have parking on both sides would suggest the risk of shortfalls is minute.

Healthcare Sub-Area

The highest observed occupancy in the Healthcare Sub-Area was recorded at 9:00 AM on Thursday, April 25, 2024 with 1,762 vehicles parked in 2,833 spaces for an overall utilization rate of 62%.

The parking demand model developed for this sub-area projects that peak hour demand under Existing Conditions occurs at 11:00 AM on a November weekday, when 1,939 vehicles are parked, resulting in a 68% utilization rate across the study area. This is roughly 10% higher than observed peak occupancy.

Under Existing Conditions, private surface parking lots to the west of Wilson Medical Center were projected to operate at capacity while those to east of the medical center varied in utilization, as did those to the south. The facilities supporting Binghamton University were lightly utilized as shown in **Figure 10** on the next page. Similarly, on-street utilization varied widely from block to block.

DESMAN's land use inventory identified over 27,000 square feet of vacant space. Absorption of vacant space was projected to increase demand in the Healthcare Sub-Area by only about 2% over Existing Conditions, with peak demand rising from 1,939 vehicles to 1,972 vehicles. As shown in **Figure 11** on the following pages, utilization rates for off-street parking facilities is largely unchanged, but on-street utilization rates along Main Street, Broad Street, and Arch Street increase dramatically relative to Existing Conditions. This is due in part to the absorption of vacant commercial space along Main Street between Board and Arch Streets.

The only emerging development that will generate new demand in the Healthcare Sub-Area is the conversion of roughly 5,000 square feet of commercial space in the Century Building, which is projected to require 33 parking spaces at the peak hour. Peak hour demand is projected to increase by 2%, from 1,972 to 2,005 spaces. As shown in **Figure 12** on the following pages, this growth in demand will only influence the utilization in the surrounding surface lots.

With regards to Alternate Side Street Parking program impacts, only two streets within the sub-area are two-sided so the reduction in the available capacity would be nominal and unlikely to result in major displacement of current or future on-street parkers.

Figure 10: Healthcare Sub-Area Existing Conditions

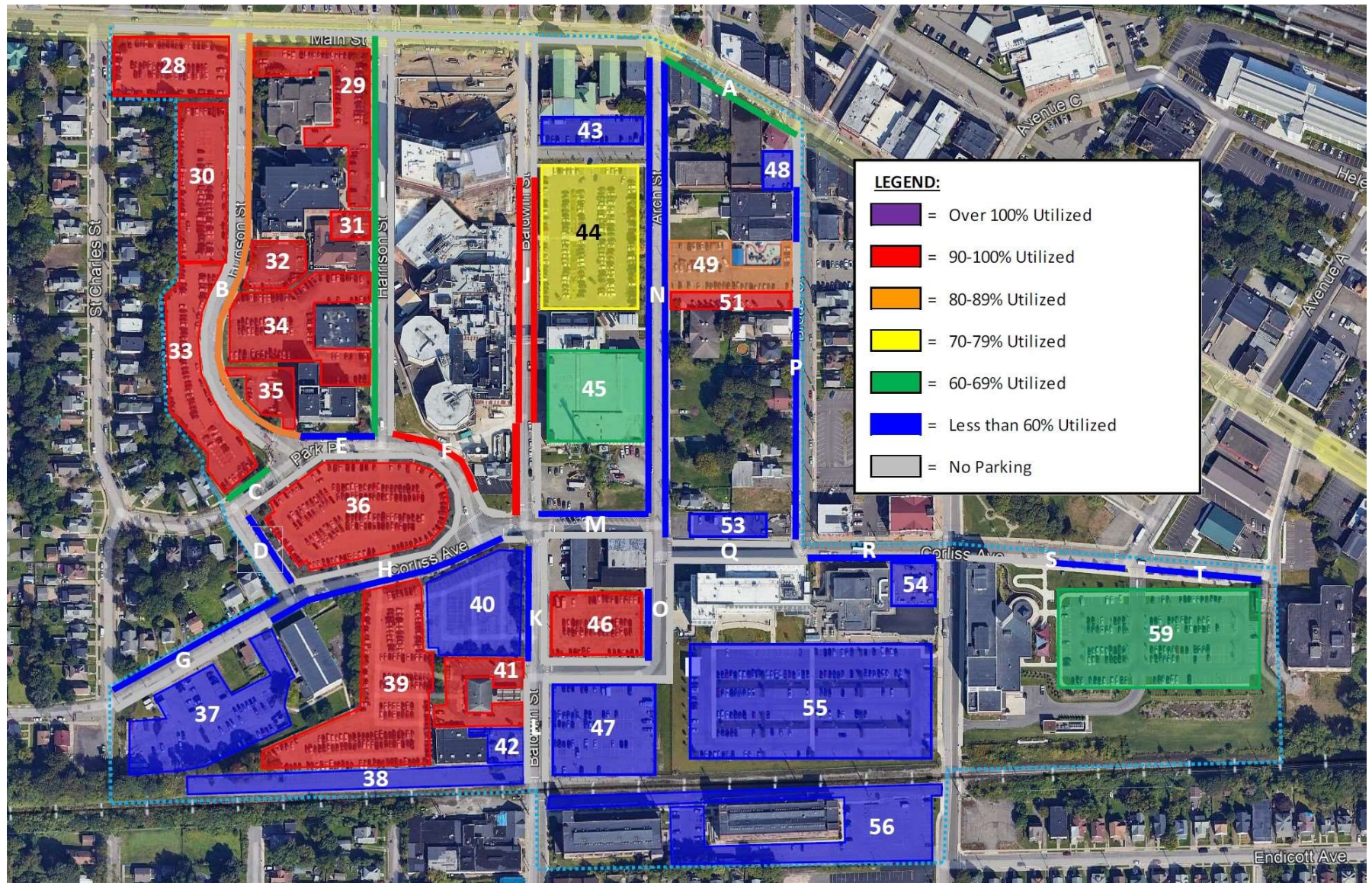


Figure 11: Healthcare Sub-Area Absorption Conditions

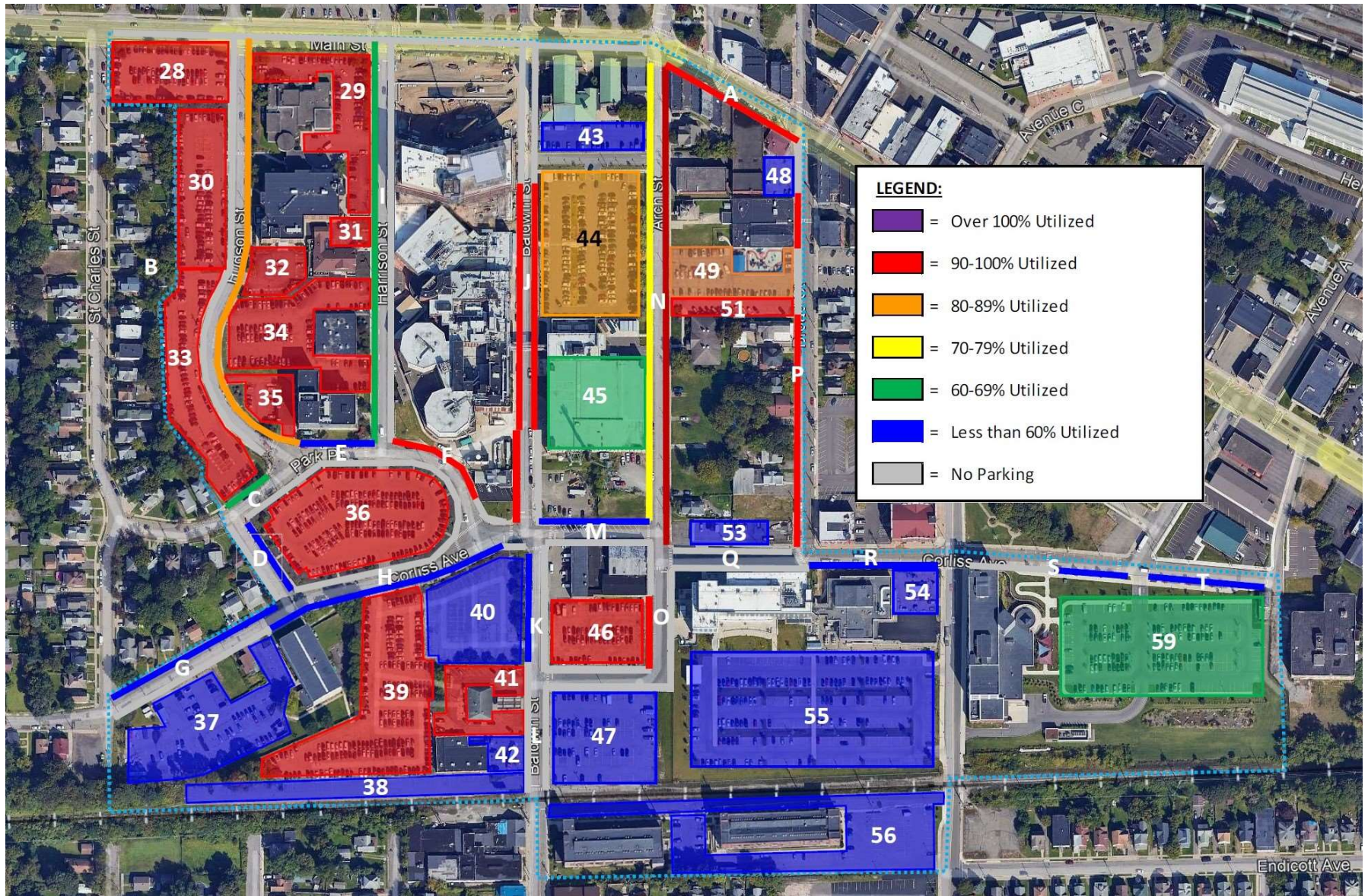
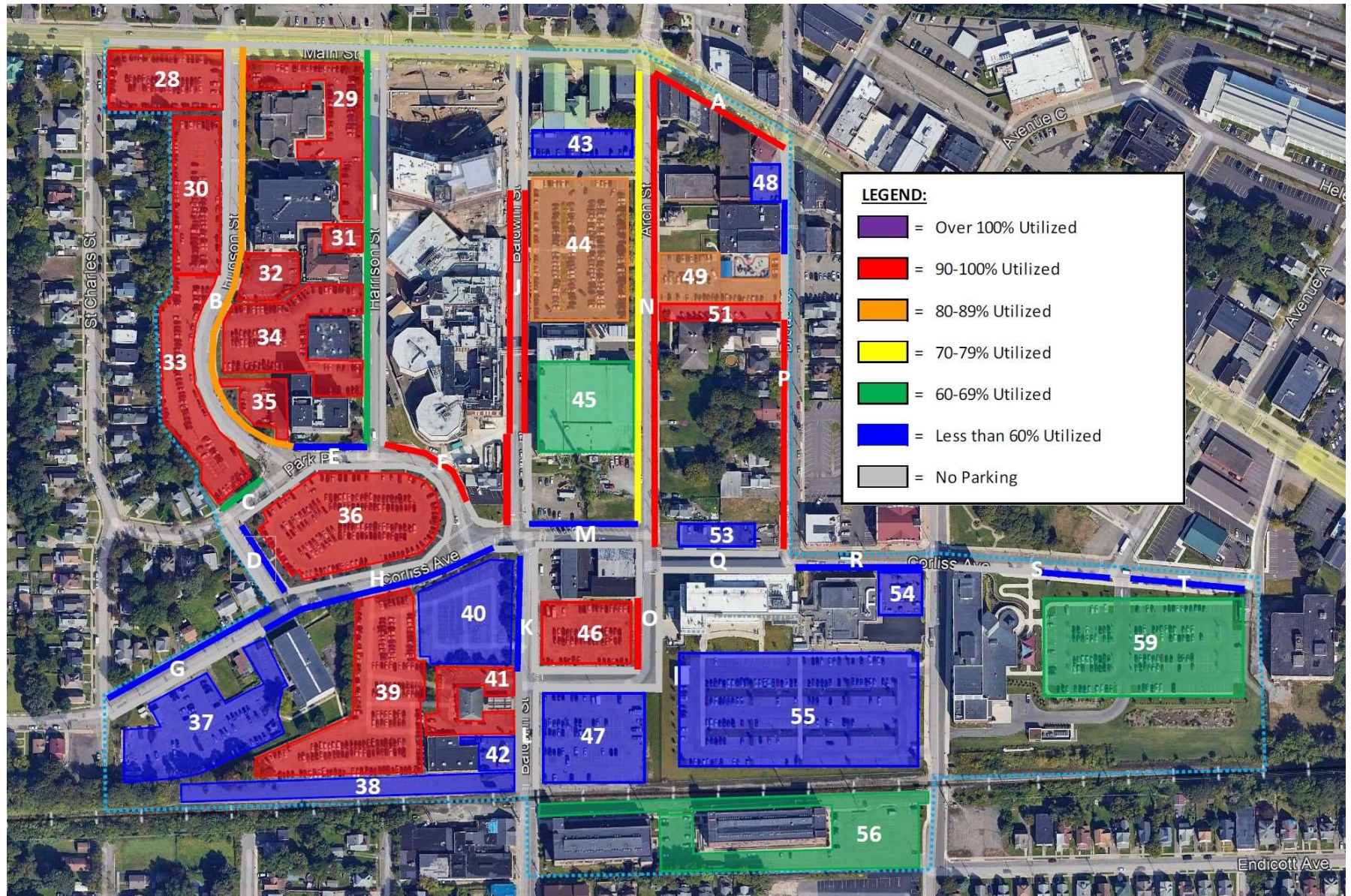


Figure 12: Healthcare Sub-Area Emerging Developments Conditions



Projected parking demand, utilization, and adequacy across the Healthcare Sub-Area for each benchmark is summarized in **Table 10** which shows that even at peak, there will still be excess parking spaces across the sub-area.

Table 10: Projected Total Parking Demand and Adequacy Across the Healthcare Sub-Area

Type of Parking	Supply	Observed		Existing Peak		Absorption		Emerging Devts	
		Thurs 4/25 @ 9:00 AM		Nov Wkdy @ 11:00 AM		Nov Wkdy @ 11:00 AM		Nov Wkdy @ 11:00 AM	
		Occ	Util	Occ	Util	Occ	Util	Occ	Util
Off-Street	2,612	1,678	64%	1,822	70%	1,829	70%	1,862	71%
On-Street	221	84	38%	117	53%	143	65%	143	65%
TOTAL	2,833	1,762	62%	1,939	68%	1,972	70%	2,005	71%
Available Spaces =		1,071		894		861		828	

Downtown Sub-Area

The highest observed occupancy in the Downtown Sub-Area was recorded at 4:00 PM on Saturday, April 27, 2024 with 252 vehicles parked in 1,247 spaces for an overall utilization rate of 20%.

The parking demand model developed for this sub-area projects that peak hour demand under Existing Conditions occurs at 12:00 PM on a June weekday, when 447 vehicles are parked, resulting in a 36% utilization rate across the study area. This is roughly 77% higher than observed peak occupancy.

Under Existing Conditions, the majority of off-street parking facilities were less than 60% utilized, with the exception of the following: the parking lot supporting the Vitali Auto Exchange (Map ID 62); the Southeast Lot along Helen Drive set aside for Victory Loft residents and guests (Map ID 74); and the St. James School Lot (Map ID 78) as shown in **Figure 13** on the following page. DESMAN also identified six on-street parking areas, all metered, which parked to or beyond capacity.

There is just over 142,000 square feet of vacant space within the sub-area. Absorption of this vacant space was projected to increase demand in the Downtown Sub-Area by roughly 41% over Existing Conditions, with peak demand rising from 447 vehicles to 631 vehicles. As shown in **Figure 14** on the following pages, utilization rates for the three lots named as running near capacity under Existing Conditions, plus two more⁵ and fifteen block faces with on-street parking approached or exceeded capacity. As the figure shows, much of the on-street parking along Main Street and bisecting avenues and streets is filled to capacity.

Conversions of space within Firehouse Stage building, 20 Willow Street, and the Endicott Johnson Fire Station will drive up peak demand by 2% over the Absorption benchmarks, from 631 spaces to 642 spaces. As shown in **Figure 15** on the following pages, this growth in demand is primarily captured in existing private parking lot associated with each property that have more than adequate capacity to support the new demand.

Given that on-street utilization is projected to run at 64-74% of capacity, losses of capacity created by the Alternate Side Street Parking program could stress the system. Luckily, this sub-area holds an abundance of open public off-street parking capacity to capture any spillover should this occasion arise.

⁵ The Village's Willow Lot (Map ID 50) and the 190 Main Street Dental Lot (Map ID 64).

Figure 13: Downtown Sub-Area Existing Conditions



Figure 14: Downtown Sub-Area Absorption Conditions



LEGEND:

- Over 100% Utilized
- 90-100% Utilized
- 80-89% Utilized
- 70-79% Utilized
- 60-69% Utilized
- Less than 60% Utilized
- No Parking



Projected parking demand, utilization, and adequacy across the Downtown Sub-Area for each benchmark is summarized in **Table 11** which shows that even at peak, there will still be excess parking spaces across the sub-area.

Table 11: Projected Total Parking Demand and Adequacy Across the Downtown Sub-Area

Type of Parking	Supply	Observed		Existing Peak		Absorption		Emerging Devts	
		Sat 4/27 @ 4:00 PM		June Wkdy @ 12:00 PM		Dec Wkdy @ 1:00 PM		Dec Wkdy @ 1:00 PM	
		Occ	Util	Occ	Util	Occ	Util	Occ	Util
Off-Street	1,059	194	18%	327	31%	495	47%	503	47%
On-Street	188	58	31%	120	64%	136	72%	139	74%
TOTAL	1,247	252	20%	447	36%	631	51%	642	51%
Available Spaces =		995		800		616		605	

Conclusions

Despite the substantial reinvestment in downtown buildings, streets, and public spaces and the significant redevelopment efforts underway in various parts of the study area, DESMAN was unable to identify any current or future shortfalls that might fall under the purview of the Village of Johnson City. While there is significant congestion in the UHS lots surrounding the Wilson Medical Center and the various specialty practices located in the buildings surrounding the facility, this speaks more specifically to management challenges than a true parking supply shortfall which might mandate development of new or additional supply. What shortfalls are projected on a block-by-block or facility-by-facility basis are located adjacent to areas of public on- and/or off-street supply which could absorb the spillover from these facilities without reaching capacity.

Exhibit 1: Residential Sub-Area Off-Street Parking Adequacy Projections

ID	Facility Name	Ownership/ Access	Supply	Observed Parking		Existing Peak		Absorption		Emerging Devts	
				Thurs, 10:00 AM		Dec Sat @ 10:00 PM		Dec Sat @ 10:00 PM		Dec Sat @ 10:00 PM	
				Occ	Util	Occ	Util	Occ	Util	Occ	Util
19	JC Learning Center Lot	Private/Private	15	2	13%	3	20%	3	20%	3	20%
20	19 Baker Street Lot	Private/Private	14	4	29%	9	64%	9	64%	9	64%
21	16 Baker Street Lot	Private/Private	40	8	20%	23	58%	23	58%	23	58%
22	Barber Memorial Home Lot	Private/Private	42	0	0%	0	0%	0	0%	0	0%
23	Campus Square North Lot	Private/Private	36	8	22%	21	58%	21	58%	21	58%
24	Campus Square South Lot	Private/Private	99	26	26%	67	68%	67	68%	67	68%
25	Moore Tire Sales Lot	Private/Private	36	27	75%	27	75%	27	75%	27	75%
26	DGS General Contractor Lot	Private/Private	6	0	0%	0	0%	0	0%	0	0%
27	346 Grand Ave Lot	Private/Private	150	0	0%	0	0%	0	0%	0	0%
57	Islamic Center Lot	Private/Private	178	11	6%	1	1%	1	1%	1	1%
58	119 Endicott/HCA Lot	Private/Private	31	22	71%	0	0%	0	0%	1	3%
*	Homesteads on Grand	Private/Private	158	0	0%	0	0%	0	0%	87	55%
Total			647	108	17%	151	23%	151	23%	239	36%

* New development at 333 Grand Avenue will replace lot @ 27 with a 158-space lot, 72 residential units, and 6,200 square feet of commercial space. Expected to open Spring 2027.

Exhibit 2: Residential Sub-Area On-Street Parking Adequacy Projections

ID	Street Name	Cross Streets	POT	Supply	Observed Parking		Existing Peak		Absorption		Emerging Devts	
					Thurs, 10:00 AM	Util	Dec Sat @ 10:00 PM	Util	Dec Sat @ 10:00 PM	Util	Dec Sat @ 10:00 PM	Util
A	West St	Sturtevant St & Corliss Ave	NB	21	3	14%	4	19%	4	19%	4	19%
			SB	44	3	7%	4	9%	4	9%	4	9%
B	Sergeant St	Sturtevant St & Corliss Ave	NB	22	8	36%	11	50%	11	50%	11	50%
			SB	20	6	30%	9	45%	9	45%	9	45%
C	Baker St	Corliss Ave & Main St	NB	36	11	31%	16	44%	16	44%	16	44%
			SB	25	6	24%	9	36%	9	36%	9	36%
D	Crocker Ave	Main St & Corliss Ave										
E	Albert St	Main St & Corliss Ave	SB	33	7	21%	10	30%	11	33%	11	33%
			NB	23	5	22%	7	30%	7	30%	7	30%
F	Allen St	Corliss Ave & Main St	SB	31	8	26%	11	35%	11	35%	11	35%
			NB	34	3	9%	4	12%	4	12%	4	12%
G	St Charles St	Corliss Ave & Main St	SB	35	5	14%	7	20%	8	23%	8	23%
			NB	35	12	34%	17	49%	17	49%	17	49%
H	Main St	Route 201 & St. Charles St	SB	36	18	50%	26	72%	26	72%	26	72%
I	Sturtevant St	West St & Sergeant St	EB	14	1	7%	1	7%	0	0%	0	0%
			WB	8	0	0%	0	0%	0	0%	0	0%
J	Sturtevant St	Sergeant St & Baker St	EB	9	3	33%	4	44%	4	44%	4	44%
			WB	6	1	17%	1	17%	1	17%	1	17%
K	Corliss Ave	West St & Sergeant St	EB	7	0	0%	0	0%	0	0%	0	0%
			WB	6	1	17%	1	17%	1	17%	1	17%
L	Corliss Ave	Sergeant St & Baker St	EB	7	2	29%	3	43%	3	43%	3	43%
			WB	6	2	33%	3	50%	3	50%	3	50%
M	Corliss Ave	Baker St & Crocker Ave	EB	5	0	0%	0	0%	0	0%	0	0%
			WB	7	1	14%	1	14%	1	14%	1	14%
N	Corliss Ave	Crocker Ave & Albert St	EB	4	0	0%	0	0%	0	0%	0	0%
O	Corliss Ave	Albert St & Allen St	EB	6	1	17%	1	17%	1	17%	1	17%
			WB	5	0	0%	0	0%	0	0%	0	0%
P	Corliss Ave	Allen St & St Charles St	EB	6	3	50%	4	67%	4	67%	4	67%
Q	Park Pl	St Charles St & Hudson St	WB	6	3	50%	4	67%	4	67%	4	67%
R	Grand Ave	Allen St / Elizabeth St & St Charles St	WB	5	1	20%	1	20%	1	20%	1	20%
S	Grand Ave	St Charles St & Hudson Ave	WB	3	2	67%	3	100%	3	100%	3	100%
T	Grand Ave	Hudson Ave & Harrison St	WB	4	3	75%	4	100%	4	100%	4	100%
U	Grand Ave	Harrison St & Baldwin St	WB	3	2	67%	3	100%	3	100%	3	100%
V	Grand Ave	Baldwin St & Willow St	WB	19	3	16%	4	21%	14	74%	14	74%
W	Grand Ave	Willow St & Johnson St	WB	13	2	15%	3	23%	3	23%	3	23%
X	Grand Ave	Johnson St & Cleveland Ave	WB	21	11	52%	16	76%	16	76%	16	76%
Y	Grand Ave	Cleveland Ave & Carhart Ave	WB	6	3	50%	4	67%	4	67%	4	67%
Z	St Charles St	Grand Ave & Dead End	SB	10	3	30%	4	40%	4	40%	4	40%
AA	Hudson St	Grand Ave & Dead End	NB	9	5	56%	7	78%	7	78%	7	78%
			SB	9	0	0%	0	0%	0	0%	0	0%
BB	Harrison St	Grand Ave & Dead End	NB	3	1	33%	1	33%	1	33%	1	33%
			SB	10	3	30%	4	40%	4	40%	4	40%
CC	Baldwin St	Grand Ave & Railway Track	SB	10	5	50%	7	70%	7	70%	7	70%
DD	Willow St	Endicott St & Grand Ave										
EE	Johnson St	Endicott St & Grand Ave	SB	6	2	33%	3	50%	3	50%	3	50%
FF	Cleveland Ave	Main St Terrace & Grand Ave	NB	6	2	33%	3	50%	3	50%	3	50%
			SB	12	4	33%	6	50%	6	50%	6	50%
GG	Endicott Ave	Willow St & Johnson St	EB	13	4	31%	6	46%	6	46%	6	46%
			WB	13	5	38%	7	54%	7	54%	7	54%
HH	Endicott Ave	Johnson St & Cleveland Ave	EB	18	4	22%	6	33%	6	33%	6	33%
			WB	18	3	17%	4	22%	4	22%	4	22%
II	Custer Ave	Cleveland Ave & Carhart Ave										
			WB	9	1	11%	1	11%	1	11%	1	11%
JJ	Main St Terrace	Cleveland Ave to Dead End	EB	8	2	25%	3	38%	3	38%	3	38%
Total				725	184	25%	258	36%	269	37%	269	37%

OSA = Blockface located in Other Sub-Area

NP = No Parking Zone

Bold Red = Utilization 90% or higher

Exhibit 3: Industrial East Sub-Area Off-Street Parking Adequacy Projections

ID	Facility Name	Ownership/ Access	Supply	Observed		Existing Peak		Absorption		Emerging Devts	
				Thurs, 8:00 AM Occ	Util	June Wkdy @ 10:00 AM Occ	Util	June Wkdy @ 10:00 AM Occ	Util	June Wkdy @ 10:00 AM Occ	Util
79	Village Hall Lot	Public/Public	58	0	0%	18	31%	18	31%	18	31%
80	Village Hall Public Works Lot	Public/Private	36	2	6%	19	53%	19	53%	19	53%
81	JH Robotics Lot	Private/Private	46	14	30%	36	78%	36	78%	36	78%
82	Public Library Lot	Public/Public	40	1	3%	12	30%	12	30%	12	30%
83	Equinox Broadcasting Lot	Private/Private	32	2	6%	24	75%	24	75%	24	75%
84	Slavic & Company Lot	Private/Private	12	2	17%	8	67%	8	67%	8	67%
85	Olum's Clearance Center Lot	Private/Private	63	0	0%	6	10%	6	10%	6	10%
86	Southern Tier Auto Care Lot	Private/Private	19	15	79%	18	95%	18	95%	18	95%
87	Car Wash Lot	Private/Private	11	0	0%	3	27%	3	27%	3	27%
Total			317	36	11%	144	45%	144	45%	144	45%

Bold Red = Utilization 90% or higher

Exhibit 4: Industrial West Sub-Area Off-Street Parking Adequacy Projections

ID	Facility Name	Ownership/ Access	Supply	Observed		Existing Peak		Absorption		Emerging Devts	
				Thurs, 8:00 AM Occ	Util	June Wkdy @ 10:00 AM Occ	Util	June Wkdy @ 10:00 AM Occ	Util	June Wkdy @ 10:00 AM Occ	Util
1	UHS Primary Care Lot	Private/Private	32	20	63%	30	94%	30	94%	30	94%
2	All Saints Church Lot	Private/Private	39	1	3%	8	21%	8	21%	8	21%
3	Old JC High School / Rear Lot	Private/Private	50	3	6%	10	20%	10	20%	25	50%
4	Old JC High School / Front Lot	Private/Private	97	15	15%	33	34%	33	34%	70	72%
5	Women's OBGYN Assoc Lot	Private/Private	65	22	34%	52	80%	52	80%	52	80%
6	United Dental Services Lot	Private/Private	19	1	5%	11	58%	11	58%	11	58%
7	Sante CWHC Lot	Private/Private	39	22	56%	29	74%	29	74%	29	74%
8	UHS Pharmacy Lot	Private/Private	63	27	43%	48	76%	48	76%	48	76%
9	McDonalds Lot	Private/Private	32	12	38%	11	34%	11	34%	11	34%
10	Walgreens/ UHS Lot	Private/Private	97	66	68%	72	74%	72	74%	72	74%
11	NBT Bank Lot	Private/Private	33	7	21%	11	33%	11	33%	11	33%
12	WMC Employee Parking Lot	Private/Private	58	26	45%	41	71%	41	71%	41	71%
13	US Postal Service Lot	Public/Private	38	13	34%	16	42%	16	42%	16	42%
14	307 Main Street Bldg.Lot	Private/Private	20	8	40%	11	55%	11	55%	11	55%
Total			682	243	36%	383	56%	383	56%	435	64%

Bold Red = Utilization 90% or higher

Exhibit 5: Industrial Sub-Areas On-Street Parking Adequacy Projections

ID	Sub-Area	Street Name	Cross Streets	POT	Supply	Observed		Existing Peak		Absorption		Emerging Devts	
						Thurs, 8:00 AM Occ	Util	June Wkdy @ 10:00 AM Occ	Util	June Wkdy @ 10:00 AM Occ	Util	June Wkdy @ 10:00 AM Occ	Util
A	Industrial East	Wells Ave	Main St & Dead End										
B	Industrial East	Brigham Ave	Main St & Dead End										
C	Industrial East	Lester Ave	Main St & Rail Line										
D	Industrial East	Main St	Lester Ave & Wells Ave										
E	Industrial West	Arch St	Main St & Rail Line										
F	Industrial West	1st St	Main St & Rail Line										
				SB	8	2	25%	5	63%	5	63%	5	63%
G	Industrial West	2nd St	Main St & Rail Line										
				SB	7	2	29%	4	57%	4	57%	4	57%
H	Industrial West	3rd St	Main St & Endwell St										
				SB	11	3	27%	7	64%	7	64%	7	64%
I	Industrial West	4th St	Main St & Endwell St										
				NB	8	2	25%	5	63%	5	63%	5	63%
J	Industrial West	Endwell St	3rd St & 4th St										
				WB	12	2	17%	7	58%	7	58%	7	58%
K	Industrial West	Main St	4th St & Arch St										
Total					46	11	24%	28	61%	28	61%	28	61%

OSA = Blockface located in Other Sub-Area

NP = No Parking Zone

Exhibit 6: Healthcare Sub-Area Off-Street Parking Adequacy Projections

ID	Facility Name	Ownership/ Access	Supply	Observed		Existing Peak		Absorption		Emerging Devts	
				Thurs 4/25 @ 9:00 AM Occ	Util	Nov Wkdy @ 11:00 AM Occ	Util	Nov Wkdy @ 11:00 AM Occ	Util	Nov Wkdy @ 11:00 AM Occ	Util
28	UHS Employee Parking Lot	Private/Private	80	78	98%	80	100%	80	100%	80	100%
29	UHS Wilson Square East Patient Lot	Private/Private	50	57	114%	50	100%	50	100%	50	100%
30	UHS Wilson Square West Patient Lot	Private/Private	91	90	99%	91	100%	91	100%	91	100%
31	UHS MRI Parking Lot	Private/Private	12	6	50%	12	100%	12	100%	12	100%
32	UHS HVI Patient Lot	Private/Private	18	20	111%	18	100%	18	100%	18	100%
33	UHS Wilson Sq/Place Employee Lot	Private/Private	99	115	116%	99	100%	99	100%	99	100%
34	UHS Neurosurgery/Ophthalmology Lot	Private/Private	100	99	99%	100	100%	100	100%	100	100%
35	UHS Pain & Spine Clinic Lot	Private/Private	8	9	113%	8	100%	8	100%	8	100%
36	WMC Employee Parking Lot	Private/Private	183	189	103%	183	100%	183	100%	183	100%
37	Eckelberger Tower Lot	Private/Private	129	51	40%	56	43%	56	43%	56	43%
38	122 Baldwin Street Parking Lot	Private/Private	59	0	0%	9	15%	9	15%	9	15%
39	WMC Employee Parking Lot	Private/Private	213	193	91%	213	100%	213	100%	213	100%
40	UHS Evening Lot	Private/Private	99	0	0%	26	26%	26	26%	26	26%
41	Dunkin Donuts Lot	Private/Private	13	13	100%	13	100%	13	100%	13	100%
42	Domino's Pizza Lot	Private/Private	20	0	0%	1	5%	1	5%	1	5%
43	Sarah Jane Johnson Church Lot	Private/Private	35	26	74%	20	57%	20	57%	20	57%
44	WMC Patient & Visitor Parking Lot	Private/Private	156	108	69%	119	76%	126	81%	126	81%
45	WMC Physician/Employee Garage	Private/Private	355	189	53%	218	61%	218	61%	218	61%
46	WMC North Faatz Alley Employee Lot	Private/Private	70	62	89%	68	97%	68	97%	68	97%
47	WMC South Faatz Alley Employee Lot	Private/Private	135	53	39%	68	50%	68	50%	68	50%
48	8 Bits Restaurant Lot	Private/Private	15	0	0%	3	20%	3	20%	3	20%
49	18 Broad St/HCA Lot	Private/Private	55	41	75%	45	82%	45	82%	45	82%
51	OBGYN Breast Center Lot	Private/Private	16	15	94%	16	100%	16	100%	16	100%
53	BU School of Pharmacy Visitor Lot	Public/Private	10	1	10%	2	20%	2	20%	2	20%
54	Binghamton University - R&D Bldg Lot	Public/Private	12	1	8%	2	17%	2	17%	2	17%
55	Binghamton U R-HSC Commuter Lot	Public/Private	279	122	44%	135	48%	135	48%	135	48%
56	Baldwin/Sunrise Building Lots	Private/Private	95	19	20%	31	33%	31	33%	64	67%
59	Binghamton U R-HSC 2 Commuter Lot	Public/Private	205	121	59%	136	66%	136	66%	136	66%
Total			2,612	1,678	64%	1,822	70%	1,829	70%	1,862	71%

Bold Red = Utilization 90% or higher

Bold Purple = Utilization greater than capacity

Exhibit 7: Healthcare Sub-Areas On-Street Parking Adequacy Projections

ID	Street Name	Cross Streets	POT	Type	Supply	Observed		Existing Peak		Absorption		Emerging Devts	
						Thurs 4/25 @ 9:00 AM	Util	Nov Wkdy @ 11:00 AM	Util	Nov Wkdy @ 11:00 AM	Util	Nov Wkdy @ 11:00 AM	Util
						Occ		Occ		Occ		Occ	
A	Main St	Arch St & N Broad St	EB	Meter	3	0	0%	2	67%	3	100%	3	100%
B	Hudson St (N)	Main St & Park Pl	NB	Meter	21	16	76%	18	86%	18	86%	18	86%
C	Park Pl	Hudson St N & Hudson St S	WB	Meter	6	4	67%	4	67%	4	67%	4	67%
D	Hudson St (S)	Park Pl & Corliss Ave	SB	Meter	6	0	0%	3	50%	3	50%	3	50%
E	Park Pl	Hudson St N & Harrison St	WB	Meter	6	3	50%	3	50%	3	50%	3	50%
F	Park Pl	Harrison St & Corliss Ave	WB	Meter	4	5	125%	4	100%	4	100%	4	100%
G	Corliss Ave	St. Charles St & Hudson St S	EB	Meter	5	1	20%	2	40%	2	40%	2	40%
			WB	Free	10	3	30%	4	40%	4	40%	4	40%
H	Corliss Ave	Hudson St S & Baldwin St	EB	Meter	12	1	8%	6	50%	6	50%	6	50%
I	Harrison St	Main St & Park Pl	SB	Meter	18	11	61%	12	67%	12	67%	12	67%
J	Baldwin St	Main St & Corliss Ave	NB	Meter	11	9	82%	10	91%	10	91%	10	91%
			SB	Meter	3	3	100%	3	100%	3	100%	3	100%
K	Baldwin St	Corliss Ave & Faatz Alley	SB	Free	4	2	50%	2	50%	2	50%	2	50%
L	Baldwin St	Faatz Alley & Railroad Track											
M	Corliss Ave	Baldwin St & Arch St	WB	Meter	15	2	13%	4	27%	4	27%	4	27%
N	Arch St	Main St & Corliss Ave	NB	Meter	23	11	48%	13	57%	23	100%	23	100%
			SB	Meter	24	9	38%	13	54%	18	75%	18	75%
O	Arch St	Corliss Ave & Faatz Alley	SB	Meter	4	0	0%	2	50%	4	100%	4	100%
P	N Broad St	Main St & Corliss Ave	SB	Meter	14	4	29%	6	43%	14	100%	14	100%
Q	Corliss Ave	Arch St & N Broad St											
R	Corliss Ave	N Broad St & Willow St	EB	Free	11	0	0%	2	18%	2	18%	2	18%
S	Corliss Ave	Willow St & Jennison Ave	EB	Free	6	0	0%	1	17%	1	17%	1	17%
T	Corliss Ave	Jennison Ave & Ozalid Rd	EB	Free	15	0	0%	3	20%	3	20%	3	20%
Total					221	84	38%	117	53%	143	65%	143	65%

OSA = Blockface located in Other Sub-Area

NP = No Parking Zone

Bold Red = Utilization 90% or higher

Bold Purple = Utilization greater than capacity

Exhibit 8: Downtown Sub-Area Off-Street Parking Adequacy Projections

ID	Facility Name	Ownership/ Access	Supply	Observed		Existing Peak		Absorption		Emerging Devts	
				Sat 4/27 @ 4:00 PM		June Wkdy @ 12:00 PM		Dec Wkdy @ 1:00 PM		Dec Wkdy @ 1:00 PM	
				Occ	Util	Occ	Util	Occ	Util	Occ	Util
15	VJC - Isabelle Lot	Public/Public	58	5	9%	12	21%	33	57%	33	57%
16	VJC - Municipal Lot	Public/Public	59	7	12%	16	27%	36	61%	36	61%
17	VJC - Police Department Lot	Public/Private	24	3	13%	6	25%	15	63%	15	63%
18A	VJC - Justice Lot	Public/Public	27	2	7%	7	26%	17	63%	17	63%
18B	VJC - Main Street Lot	Public/Public	20	4	20%	10	50%	13	65%	13	65%
50	VJC - Willow Lot	Public/Public	59	28	47%	50	85%	53	90%	53	90%
52	Goodwill Theater lot	Private/Private	97	2	2%	5	5%	10	10%	12	12%
60	14 Lewis Street Lot	Private/Private	22	1	5%	3	14%	6	27%	6	27%
61	Guthrie JC Senior Care Lot	Private/Private	15	0	0%	2	13%	4	27%	4	27%
62	Vitali Auto Exchange Lot	Private/Private	50	45	90%	49	98%	49	98%	49	98%
63	215 Main Street Lot	Private/Private	45	0	0%	5	11%	10	22%	10	22%
64	190 Main St (Dental) Lot	Private/Private	4	0	0%	3	75%	4	100%	4	100%
65	M&T Bank Lot	Private/Private	58	0	0%	3	5%	9	16%	9	16%
66	2 Jennison Ave Lot	Private/Private	58	0	0%	3	5%	9	16%	9	16%
67	JF Rice Funeral Home Lot	Private/Private	60	0	0%	2	3%	9	15%	9	15%
68	Old Mary Myers Salon Lot	Private/Private	31	2	6%	4	13%	12	39%	12	39%
69	St. James Church Lot	Private/Private	69	16	23%	29	42%	33	48%	33	48%
70	Knights of Columbus Lot	Private/Private	42	0	0%	3	7%	10	24%	10	24%
71	Victory Lofts Southwest Lot	Private/Private	73	12	16%	16	22%	36	49%	42	58%
72	Dollar General	Private/Private	24	5	21%	11	46%	13	54%	13	54%
73	Millers Body Shop	Private/Private	13	0	0%	3	23%	7	54%	7	54%
74	Victory Lofts Southeast Lot	Private/Private	30	15	50%	27	90%	27	90%	27	90%
75	39 Laurel Street Lot	Private/Private	31	3	10%	6	19%	16	52%	16	52%
76	NY Telephone Company Lot	Private/Private	12	1	8%	4	33%	7	58%	7	58%
77	St. James Rectory Lot	Private/Private	18	1	6%	3	17%	9	50%	9	50%
78	St. James School Lot	Private/Private	42	42	100%	42	100%	42	100%	42	100%
88	Binghamton Realtor's Lot	Private/Private	18	0	0%	3	17%	6	33%	6	33%
Total			1,059	194	18%	327	31%	495	47%	503	47%

Bold Red = Utilization 90% or higher

Exhibit 9: Downtown Sub-Areas On-Street Parking Adequacy Projections

ID	Street Name	Cross Street	POT	Type	Supply	Observed		Existing Peak		Absorption		Emerging Devts	
						Sat 4/27 @ 4:00 PM		June Wkdy @ 12:00 PM		Dec Wkdy @ 1:00 PM		Dec Wkdy @ 1:00 PM	
						Occ	Util	Occ	Util	Occ	Util	Occ	Util
A	Arch St	Main St & Railroad track											
B	N Broad St	Main St & Railroad track	NB	Free	12	5	42%	10	83%	12	100%	12	100%
C	Avenue D	Main St & Dead End	NB	Meter	5	4	80%	5	100%	5	100%	5	100%
D	Avenue C	Main St & Helen Dr	NB	Meter	3	3	100%	3	100%	3	100%	3	100%
E	Avenue B	Main St & Helen Dr	SB	Meter	4	3	75%	4	100%	4	100%	4	100%
			NB	Meter	6	1	17%	6	100%	6	100%	6	100%
F	Avenue A	Main St & Helen Dr	SB	Meter	10	3	30%	8	80%	10	100%	10	100%
			NB	Meter	7	2	29%	6	86%	7	100%	7	100%
G	Lester Ave	Main St & Rail Line											
H	Main St	Arch St & N Broad St	WB	Meter	3	3	100%	3	100%	3	100%	3	100%
I	Main St	N Broad St & Avenue C	EB	Meter	10	2	20%	8	80%	10	100%	10	100%
			WB	Meter	9	6	67%	9	100%	9	100%	9	100%
J	Main St	Avenue C & Avenue B	EB	Meter	7	2	29%	5	71%	7	100%	7	100%
			WB	Meter	10	4	40%	8	80%	10	100%	10	100%
K	Main St	Avenue B & Avenue A	EB	Meter	4	1	25%	3	75%	4	100%	4	100%
			WB	Meter	6	0	0%	4	67%	6	100%	6	100%
L	Main St	Avenue A & Lester Ave											
M	Helen Dr	Avenue B & Lester Ave											
N	Laurel St	Avenue A & Lester Ave	EB	Free	12	2	17%	3	25%	3	25%	3	25%
			WB	Free	6	3	50%	5	83%	5	83%	5	83%
P	N Broad St	Main St & Corliss Ave	NB	Meter	12	5	42%	10	83%	12	100%	12	100%
Q	Willow St	Main St & Corliss Ave	SB	Meter	6	0	0%	4	67%	4	67%	6	100%
R	Jennison Ave	Main St & Corliss Ave	SB	Meter	3	0	0%	2	67%	2	67%	2	67%
			NB	Meter	7	0	0%	3	43%	3	43%	3	43%
S	Ozalid Rd	Corliss Ave & Main St											
T	Park St	Main St & Dead End	NB	Free	11	2	18%	5	45%	5	45%	5	45%
U	Lewis St	Willow St & Jennison Ave	EB	Free	25	7	28%	4	16%	4	16%	5	20%
V	Corliss Ave	N Broad St & Willow St											
W	Corliss Ave	Willow St & Jennison Ave	WB	Free	10	0	0%	2	20%	2	20%	2	20%
X	Corliss Ave	Jennison Ave & Ozalid Rd											
Total					188	58	31%	120	64%	136	72%	139	74%

OSA = Blockface located in Other Sub-Area

NP = No Parking Zone

Bold Red = Utilization 90% or higher

APPENDIX C

TO: Stephanie Yezi Village of Johnson City

FROM: John Judge DESMAN
Patricia Every PA Every Architects
Andy Hill DESMAN

DATE: October 23, 2024

RE: Task II.9 and II.10: Assess Implications of iDistrict Design Guidelines on Structured Parking Design and Siting and Potential Parking Garage Site Identification

IMPLICATIONS OF DESIGN GUIDELINES ON STRUCTURED PARKING DESIGN

The Village of Johnson City has codified its iDistrict design standards as Article 57 within the Village Zoning Code. The Village's historic district is on the National Register of Historic Places. The design standards' purpose is to ensure that new development is in concert with the historic character of the Village, which is generally defined by properties having a street frontage of 50 feet or less and a height of three stories or less or by a property's designation as a contributing structure within the Johnson City Historic District.

Parking structures by their nature consist of large footprints (125 feet by 250 feet) with a utilitarian façade that reflect their role as public storage buildings. The photo below illustrates a stereotypical approach to a parking structure's exterior facade. Note the strong horizontal bands needed for bumper guards and the long span between columns reflecting the column-free parking bay design.



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It should be noted that the existing Wilson Hospital Garage is not located within the Village Central Business District.

The iDistrict design guidelines address both the use of exterior materials and the composition of buildings themselves. One material commonly observed in the Village CBD is brick masonry. One approach to parking structure design is to incorporate brick masonry into the façade and provide secondary non-structural vertical elements as DESMAN did with a parking structure recently completed at Marine Corps Base Quantico in Virginia. Note the composition of the openings in the pedestrian tower and shear wall and the additional vertical elements.



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Our interpretation of the design guidelines would be to apply the rhythm of the openings of the shear walls and pedestrian towers to the full building façade, along with an effort to reduce the building length by varying the character of materials used. This approach, along with an introduction of street level awnings was successfully used at the East All Saints Street Garage in Frederick, Maryland. Note how the façade uses a traditional window pattern, and how the long façade is broken into smaller components.



The architect of record was Proffitt and Associates who completed a conceptual theme by BCT Architects under the direction of DESMAN, project design manager.

For appropriateness in the Village of Johnson City, the building height would be reduced from six (6) parking tiers to four (4), but the fundamental concepts of the approach would find favor with the design standards. A discussion regarding appropriate parking structure height within the Village is provided later in this report.

In keeping with the historic charm of the Village of Johnson City any new structure must conform to the style and form described in the design standards. This is particularly necessary when designing the façade of a large structure. Johnson City's standards do this by 'hiding' a large structure through the use of historically complimentary façade treatments, historically accurate window sizes and styles; historic materials; and limiting the distance between stories and the overall height of new buildings.

Street facing facades will use materials and styles architecturally consistent and complimentary with other downtown buildings. In order to conceal the type of building there will be changes within the façade to make it read as smaller buildings. This will be achieved by staggering portions of the façade with variation in setback distances, height differentiation and changes between 'buildings' in the window size and spacing, cornice trim, and other details. The remaining facades will also have fasciae, setbacks, recesses, and openings used to break up large facades. Street materials shall return at least 10 feet down the non-street sides. Facades are to be placed parallel with the streets.

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While a parking facility exterior design can be made compatible with adjacent existing buildings, there will be some fundamental differences between the parking structure exterior composition and traditional buildings. Pedestrian exits will be fully visible from the street. This will allow Village police to see into the pedestrian areas and will let customers know they are being seen. Natural ventilation requirements and the need to reduce glare will largely prohibit the use of glazing in the exterior elevations. Openings in the structure can be made to reflect a window composition with detailing added to replicate metal frames. If desired, vertical plant material can be provided through the provision of trelliage and appropriate climbing species planted at the base.

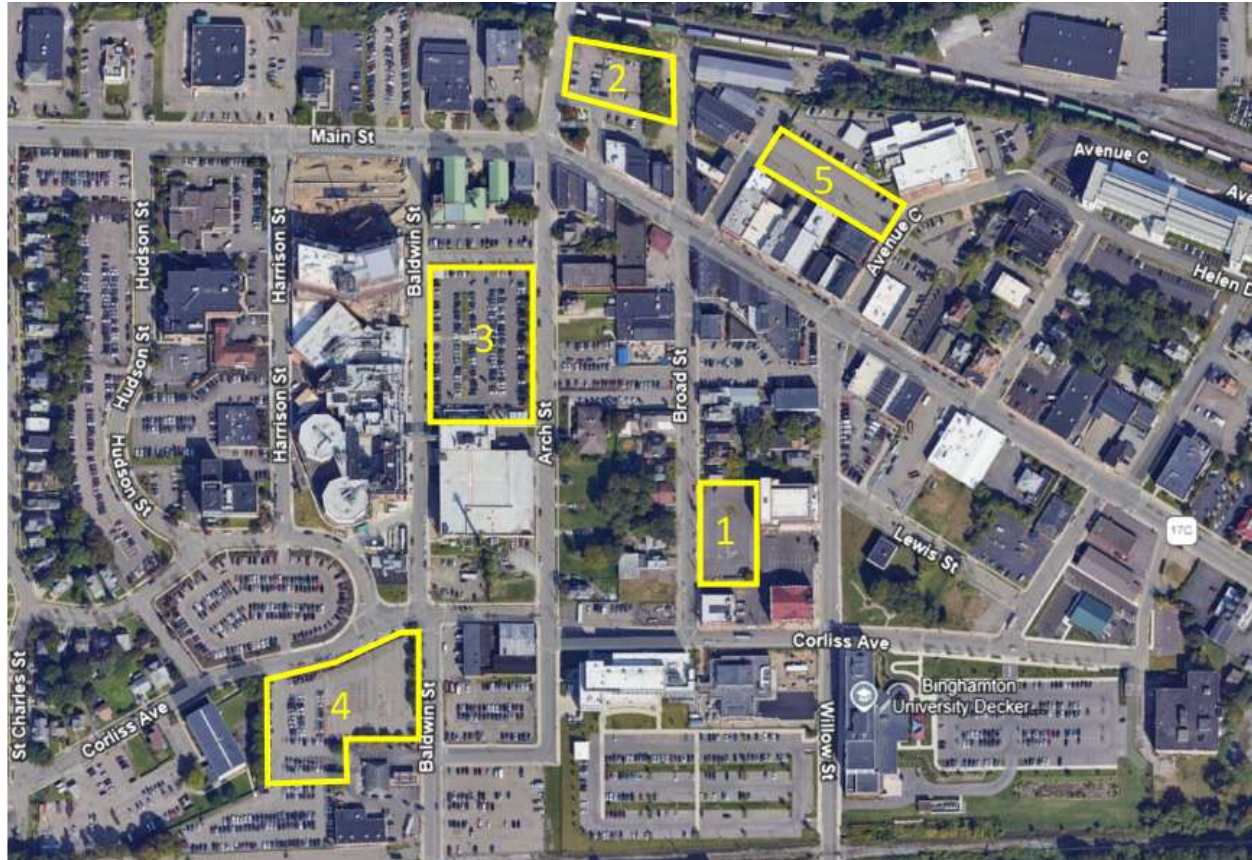
Site amenities such as lights, benches, trash cans, bicycle racks, bollards, etc. can and should be of a historical character. If a reduction in parking provision can be tolerated provision of micromobility features such as bicycles and scooters plus needed support facilities such as repair tables and air pumps can be provided.

Modern storm water runoff standards will apply to the parking design. Standards are usually met with the provision of water quality and quantity containment structures located below the parking structure which intercept and treat runoff before discharge into the local storm and sanitary sewers.

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POTENTIAL PARKING GARAGE SITE IDENTIFICATION

After completing the analysis of parking supply and parking demand, DESMAN and the Village of Johnson City identified five sites within the study area for future development of parking structures. Site locations are indicated in the graphic below.



A summary of those sites is presented in the table below.

Potential Parking Structure Sites			
Identification	Description	Ownership	Zone
1	Surface Parking Lot at 67 Broad Street	Goodwill Theatre, Inc.	NC
2	Isabelle Surface Parking Lot at Isabelle Place	Partially owned by the Village of Johnson City	CB
3	Surface Parking Lot at 55 Baldwin Street	UHS	NC
4	Surface Parking Lot at 150 Corliss Avenue	UHS	NC
5	Municipal "Avenue C/Former Village Hall Lot" at 243 Main Street	Village of Johnson City	CB

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DESCRIPTION OF EXISTING CONDITIONS

1. Private Surface Parking Lot at 67 Broad Street

The existing private parking lot located to the northwest of the Goodwill Theater and north of the 67 Broad Street building provides fifty-four (54) existing private parking spaces. The site slopes up from its southeast corner on Broad Street to the east approximately three (3) feet. Available tax mapping suggests that the surface lot has been consolidated from four parcels with overall measurements of 200' northerly by 125' westerly.



Looking northeast from Broad / Corliss intersection. Site is in photo left.



Looking northeast across site.



Looking south at theater building. Note side yard distance along Broad Street. Binghamton University building in background.



Looking southeast from parcel northwest corner.

2. Isabelle Surface Parking Lot at 17 Isabelle Place

The existing public parking lot is the Village-owned section of a larger parcel containing fifty-eight (58) parking spaces adjacent to Veterans Memorial Park. The site is largely flat. Available tax

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mapping suggests the irregular site is a quadrilateral having sides measuring 90 feet parallel to Arch Street, 150 feet, 138 feet, and 187 feet. These dimensions include the Isabelle Place right-of-way.



Looking north into site from Isabelle Street



Looking south from northwest corner of site



Existing lot Multi-Space Meter



Village War Memorial adjacent to site

3. UHS Surface Parking Lot at 55 Baldwin Street

The existing private parking lot north of the United Health Service (UHS) Physician & Employee Parking Garage provides one-hundred fifty-seven (157) parking spaces for Wilson Medical Center patients and visitors. The site slopes down as one travels south along Baldwin Street. Available tax mapping suggests that a parcel measuring 300' northerly by 225' westerly could be subdivided from the existing parcel. Joint development of this site with UHS could provide significant positive results for both the Village and UHS. The resulting parking could accommodate visitors to both the hospital and the Village Central Business District. Depending on the hospital master plan, development of this site could allow the hospital to demolish the aging parking structure further south and free up other long-term possibilities allowing for further expansion of the hospital or development of medical office buildings.

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Looking southwest across site.



Looking south along Baldwin Street.



Looking north from southern parcel line.

4. UHS Surface Parking Lot at 150 Corliss Avenue

The existing private parking lot is an irregularly shaped parcel occupying the southwest corner of Corliss Avenue and Baldwin Street and containing one-hundred eighty-seven (187) parking spaces. The proposed parking solution does not include the surface lots south of the parcel located at 130 Baldwin Street and within the Norfolk Southern Railway right-of-way. The lot is subdivided into two parking areas by a chain link fence that prohibits circulation between the sections labeled for general UHS employees and evening employees. The site slopes down approximately five feet to the low point in the southwest corner. Available tax mapping suggests that the parcel measures 235' northerly by 340' westerly with additional area in the northeast corner and an adjacent parcel reducing the parcel area in the southeast corner.

It should be noted that northeast surface lot accessed from Baldwin Street is not currently being used. As part of the conversation about this parcel, the Village may wish to inquire regarding the reason behind this condition.

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Looking southwest across site.



Looking northeast across site. Note existing parking structure in background.

5. Municipal "Avenue C/Former Village Hall" Lot at 243 Main Street

The existing public parking lot behind Main Street between Avenue C and Avenue D provides 59 parking spaces. The site slopes up from both Avenue C and Avenue D to a high point in the center of the site. Available tax mapping suggests that a parcel measuring 100' northerly by 300' westerly could be subdivided from the existing parcel.



Looking east from across site from Avenue D,



Rear of Old Village Hall.

JOHNSON CITY VILLAGE ZONING ORDINANCES

DESMAN reviewed the Village Zoning Map available to the public at the Village's website. As reported earlier, three sites are in Zoning District NC (Neighborhood Commercial), and two sites are in Zoning District CB (Central Business). A summary of development limitations of each zoning district is presented in the following table:

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Zoning District	Min. Front Yard	Min. Rear Yard	Min. Side Yard	Max. Height
NC	20'	20'	15' ¹	40'
CB	0' ²	0' ²	0' ²	40'

Notes: ¹ Side yard setback may be reduced to 5' if the adjacent property is commercial.
² The Village Planning Board could require front, rear, or side yard setbacks during the site plan review process.

Article 21 of the Village Zoning Code indicates that a motor vehicle parking lot land use is permitted in CB zoning, and specially permitted in NC zoning. For the purpose of this study, we will assume that for the properties zoned NC, a special use permit will be granted following a public hearing. We will also assume that no variances regarding set-backs will be sought or granted.

We understand the Zoning law definition for building height is the vertical distance between average grade plane and the uppermost height of any parapet. Elevator and stair towers are allowed to extend higher than the parapet line. For the purposes of this study, we will assume a floor-floor height of 12'-0". This will allow the parapet of the uppermost or 4th tier to be located 40' above the street. The designs used for this study include a "flat" parking bay(s) slightly sloped for drainage, and one ramped bay connecting the "flat" bays stacked vertically. As a result, one can construct a grade tier plus three flat tiers above for a total of four tiers. Ramped bays will then connect each of those flat tiers between levels 1-2, 2-3, and 3-4. As a result, in the Village, a four-tier or 3.5-level parking deck is permissible.

The Village of Johnson City's zoning requires that parking be placed within 400 feet of the building it is intended to serve. In order to encourage infill development, the Village should consider variances to this requirement once shared municipal parking is developed.

The Village of Johnson City's zoning mandates a parking stall size to be 9'-0" x 18'-0" with a 24' wide drive aisle. Village zoning does not prescribe small car, bicycle, motorcycle, or sustainable parking standards. Accessible parking in accordance with Chapter 11 of the 2020 Building Code of New York State must be provided.

DESCRIPTION OF POTENTIAL SOLUTIONS

National observations of the mandated 9'-0" wide geometry conclude that this stall size is appropriate for a parking system consisting exclusively of large vehicles, or for a parking system dominated by rapid turnover or customers who visit the facility rarely.

The size of parking stalls should be based on typical use. As a general rule, the lower the turnover, or the more urban the location, the smaller the spaces users can tolerate. Commercial parking spaces that serve Central Business District employees and visitors, such as those that will be located within the proposed parking structures experience little to moderate turnover. Employees arrive in the morning, vehicles stay in parking spaces the majority of the day, and commuters depart in late afternoon. The National Parking Association recommends a parking space range of 8'-6" to 8'-9" for moderate turnover parking.

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Looking at vehicle size, the AASHTO passenger car (P) design vehicle is 7'-0" wide by 19'-0" long with an inside turning radius of 17 feet and an outside turning radius of 24 feet. The vast majority of large passenger cars on the road today are smaller than those design dimensions with tighter turning radii. Therefore, if the parking system is designed to accommodate the AASHTO passenger car design vehicle, most vehicles will be able to navigate the system.

For this study, the 9'-0" wide stall has been assumed. Moving forward, the Village may wish to revisit its zoning to allow for more flexibility in determining appropriate stall size.

For efficient parking development, site dimensions of 125' wide by 250' long are preferred. These dimensions allow for the construction of 2 adjacent parking bays with parking ramping between levels. As described above, each of the developed concepts are constructed to the 40' maximum height permitted in the Village.

Some fundamental parking geometric assumptions have been applied to the developed. Since the parking customers will be transient parkers, ramp slopes between levels have been designed with a maximum slope of 5% to better the customers' ability to control doors when parked on the ramps. Efficient site utilization of 325 square feet per parking space or better is the goal of any structured parking layout. This is an important concept because the structured parking unit cost on a square foot basis is relatively static. The more efficiently the designer can use the space, the more parking spaces can be provided with a lower unit cost per space. National averages suggest that the cost of parking construction in New York's Southern Tier will be in the range of \$90 to \$95 per square foot. An efficient parking design will therefore cost \$30,000 per parking space while an inefficient design will cost \$37,000 per parking space.

Each of the parking solutions presented has been prepared assuming a quality parking structure affording a safe environment to its users. Characteristics that the Village should insist upon should structured parking be developed include:

- Clean traffic flow and entries and exits without sharp turns.
- Pedestrian circulation points free of conflict with traffic circulation.
- Parking bays without columns or walls in the parking field.
- Clear visibility from the street into stair towers, elevators, and parking areas.
- Absence of walls restricting driver vision and/or provided hiding places.
- Clear heights between the floor and structure above no less than 8'-4".
- Lighting levels between 1 fc and 10 fc with an average of 4 fc in the parking area with transition lighting provided at vehicle entries and exits.
- Concrete elements conforming to recommendations of the American Concrete Institute's Guide for the Design and Construction of Durable Parking Structures for facilities located in the Northeast United States.

Drawings showing conceptual parking layouts, ramping systems, pedestrian circulation, and vehicle street access are presented in Appendix A. Because of the narrowness of most lots in the Village, each of these sites must be considered urban which means that there is little to no construction lay down space. During the 12-14 month construction period, the Village needs to be prepared to lose adjacent street curb space to construction offices and other uses.

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1. *Private Surface Parking Lot at 67 Broad Street*

The parking layout developed assumed the parcel would have a Broad Street address. It should be noted that the existing surface lot in the 38' x 95' parcel between this site and the theater building would remain. A front setback of 5', matching that of the adjacent Goodwill Theater, a rear setback of 20', a 5' side setback on the Goodwill Theater side, and a 15' side setback to the north would be utilized. The resulting building footprint of 100' x 180' could yield a parking structure with one double-loaded bay (parking spaces on each side of the drive aisle) and one single-loaded bay (parking spaces on one side of the drive aisle only), assuming the deck's customers would find the resulting drive aisle widths of 21.5' acceptable.

Despite the narrow drive aisles, the provided efficiency of 400 square feet per space is far less than industry standard. The parking structure provides 150 spaces on four levels.

2. *Isabelle Surface Parking Lot at 17 Isabelle Place*

A four-level, 125-space parking structure could be developed on this site. We understand the Village's goal is the removal of the traffic signal at the intersection of Isabelle Place and Main Street. Due to the close proximity of both the Main Street intersection and the bridge over the Norfolk Southern railroad, parking structure access from Arch Street is not recommended. As a result, exiting traffic from the parking structure will have difficulty accessing Main Street from Isabelle Place due to the limited sight distance. It should be noted that if the parking structure is developed as indicated, a parcel located between the Village property and the railway property to the north becomes accessible from North Broad Street only.

Since the site's dimensions are significantly less than minimum standards, a very low number of parking spaces can be provided on a typical level as indicated in the drawing in the appendix. The resulting efficiency is more than 500 square feet per parking space. The resulting building footprint varies but is generally 105' x 165' could yield a parking structure with one double-loaded bay (parking spaces on each side of the drive aisle) and one single-loaded bay (parking spaces on one side of the drive aisle only) each with 24' drive aisles and 18' long parking spaces, and a section of speed ramp without parking.

The impact on adjacent property, the access difficulty, and the very poor efficiency (resulting in very expensive construction costs) combine to make this site a poor choice for structured parking development.

3. *UHS Surface Parking Lot at 55 Baldwin Street*

Taking the Village's setbacks into account, a four-level 550-space parking structure could be developed on this site. Customers could access the deck from both Baldwin Street and Arch Street. The resulting 3-bay parking structure has a resulting efficiency of 310 square feet per parking space. The footprint is a 185' wide by 260' long allowing for 20' setbacks on all sides. Parking geometry provided is the Johnson City standard stall with 24' wide drive aisles.

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4. *UHS Surface Parking Lot at 150 Corliss Avenue*

Taking the Village's setbacks and the irregular shape into account, a four-level 525-space parking structure could be developed on this site. Customers could access the deck from both Baldwin Street and Corliss Avenue. The resulting 2.5-bay parking structure has a resulting efficiency of 325 square feet per parking space. The potential building length is slightly greater than 300' with the 2-bay section measuring 125' wide and the 3-bay section measuring 185' wide. The building width allows for the use of 24' wide drive aisles.

5. *Municipal Surface Parking Lot at 243 Main Street*

A parking facility at this location could be accessed from both Avenue C and Avenue D. The potential building footprint of 100' x 300' could yield a parking structure with one double-loaded bay (parking spaces on each side of the drive aisle) and one single-loaded bay (parking spaces on one side of the drive aisle only), assuming the deck's customers would find the resulting drive aisle widths of 21.5' acceptable. This building dimension also assumes that the new building could be constructed with little to no distance from adjacent existing buildings that front Main Street.

Taking the above into account, a four-level 315-space parking structure could be constructed at the site. The resulting two-bay structure has an efficiency of 340 square feet per parking space.

Taking the above information into account, it is clear that parking development will be the most cost effective on the parcels currently controlled by UHS for Wilson Hospital. Unfortunately, these sites, especially the Corliss Avenue site, are an especially long walk away from the Village's Main Street commercial zone.

Should the Village wish to proceed with structured parking on property it currently controls, the lot at 243 Main Street is the better choice.

APPENDIX D

DATE: *Tuesday, November 26, 2024*

TO: *Stephanie Yezzi, Director of Planning - Village of Johnson City*

CC: *John Judge, Vice President – DESMAN Inc.*

FROM: *Andrew S. Hill and Reese King-Hill*

PROJECT: *Village of Johnson City* **PROJECT #:** *30-23127.00*

RE: *Task 4 Report – Operations Assessment*

The following task report corresponds to Task III.1 (Review Management Policies and Procedures), Task III.2 (Provide Examples of Best Practices for Downtown Parking), and Task III.3 (Recommend Improvements to Current Operations) within the original Request for Proposal.

MUNICIPAL PARKING MANAGEMENT BEST PRACTICES

The following section is intended to provide a framework and guidelines for future policy-making. By establishing a set of guiding principles for the public parking system, the municipality ensures that future policy-making, while focusing on addressing an immediate challenge or concern, is consistent with the community's values and goals. These guiding principles act as 'philosophical guardrails' which ensure the parking system is moving forward in alignment with the strategic vision for the municipality.

Common Municipal Best Practices

There is no universal set of standards which defines what a municipal parking system should be or how it should operate. The International Parking & Mobility Institute (IPMI) has developed the *Accredited Parking Organization* (APO) program, which presents a set of criteria for scoring the 'excellence' of an organization as judged by supporting documentation and observed operational practices in the following areas:

1. Enabling legislation;
2. Administrative structure and assignment of responsibilities;
3. Strategic goal setting;
4. Budgeting and financial planning;
5. Statement of organizational mission or vision;
6. Staff recruitment, training, development and retention;
7. Standard operating procedures for management and maintenance;
8. Revenue and access controls;
9. Facility maintenance programs;
10. Parking enforcement, adjudication, and collections;
11. Safety and security procedures;
12. Environmental sustainability;

13. Communications to constituents;
14. Marketing;
15. Data management;
16. Compliance with electronic payment transaction standards;
17. Management of subcontractors.

The matrix which better defines how these areas are evaluated and the manual for prospective applicants interested in the program are available without cost through the IPMI website upon official request. These materials may not be germane to every public parking system operating in the U.S., but they do provide a helpful structure and metrics when setting goals for an organization, evaluating its structure or operations, or establishing a vision of what the next evolution of the system might look like.

In the experience of DESMAN personnel, successful public parking systems and their associated organizations of any size incorporate the following practices and characteristics:

1. **The parking system and/or organization has a guiding mission or vision which defines the role parking should play in the community.** This statement of philosophy is critical because it defines policy-making going forward. Every municipality expects their parking system to serve the community's constituents, but the mission and/or vision statements should be clear in how that is achieved. For example, the municipality which needs a parking system to be self-supporting financially may state that the system must provide services in a 'revenue-neutral' manner. Municipalities which rely on parking revenues to subsidize other programs may include language stating this as part of the core mission of the system. If a municipality wants to use their public parking system to support new development, this should also be explicit within the mission and/or vision statement.
2. **A strong municipal parking system acknowledges the value of the services they provide.** Parking is a public good which uses public funds to provide in quality service. A constituent may not ever question increases in their utility or water rate levied to maintain service, but will protest passionately about the introduction of fees for parking or a rate increase. Accurate accounting and reporting of annual revenues as well as operation and maintenance expense of a parking system to demonstrating why 'free' parking is never truly free. The best public parking systems maintain an enterprise fund or similar fiscal structure specifically for this purpose and publish annual reports detailing its health and expenditures.
3. **The setting of rates is focused on behavior management, not revenue generation.** Rates should be set to achieve certain goals regarding use, first and foremost. Municipalities often recognize that on-street or curbside parking will almost always be in greater demand and more desirable than off-street parking due to the proximity it affords to a destination and will typically price the cost of an hour at a curbside space to be substantially greater than the same length of stay in space in a nearby off-street facility. Parking managers will seek to balance supply and demand between two facilities by increasing the cost of parking in the overburdened facility and reducing it in the underutilized facility. Rates may vary from facility to facility and block face to block face for the same reason. Finally, rate structures may escalate according to the driver's length of stay, remain relatively affordable for the first few hours and increasing exponentially thereafter to create a fiscal disincentive for long-term parkers.
4. **Fines should be structured to reflect the severity of the offense, encourage quick payment of the fine, and reduce the likelihood of repeat offenses.** Fines associated with actions which cause

minor inconveniences to the community, such as overstaying a time limit or meter feeding, should be proportionately lower than offenses which create a public safety issue, such as double-parking or blocking a fire hydrant. Fines are intended to be corrective, not punitive, but are only effective as corrective measures when payment of the fine can still be associated with the offense; a fine structure which does not incent payment within a reasonable period after the offense loses its ability to be corrective. Finally, the ordinances governing citations should include language allowing for escalation of fine amounts for repeat offenses, to reduce recidivism.

5. **Policies should be based on community-backed principles and system objectives.** When most municipalities first create a public parking system, policy-making tends to occur in response to an event or issue which has arisen in the community and the resulting policies tend to be narrow and specific to that event or issue. Over time, this kind of reactive policy making can result in a patchwork of ordinances which may substantially differ or even conflict with each other, causing confusion and consternation among the citizenry and stakeholders. Establishing a vision or mission for the system, building consensus around a set of guiding principles, and tying policy development to larger objectives reduces the likelihood of conflicts and renders policies which are more uniform, understandable to constituents, and enforceable.
6. **Parking enforcement is necessary to assure fair and equal access to all constituencies.** The role of parking enforcement personnel is often characterized as predatory, but most individuals receiving parking tickets deliberately engaged in a behavior which placed them in conflict with public policy. The municipality should take care to gather adequate evidence to support a citation in advance of its issuance and should offer a process by which individuals can contest a citation they believe was issued in error. If the citation is determined to be invalid, the citation should be invalidated and the associated fine waived; if the citation is valid, the citation and its associated fine should be upheld without discount or modification. The municipality should take every opportunity to educate the public about how policies are formed to assure fair and equal access and why enforcement is critical to protecting that fair and equal access.
7. **Strong parking systems provide a variety of solutions from which the individual chooses the best one for their needs.** Many municipalities will champion universal rates and processes under the argument that doing so makes parking more predictable and parkers less anxious as result. However, municipalities with robust parking systems build their success on providing choice to each user according to their needs. In addition to varying rates by facility to offer discounted or even free parking for budget conscious parkers in more distant or underused facilities and assuring availability in more utilized facilities for those parkers willing to pay a premium for proximity, this also applies to processes. Some parkers are very technologically savvy and have no issue adopting new technologies, but others may prefer or require the option to pay for their parking in cash and/or manually. It is a benefit to automate certain processes such as applying for a permit, paying a ticket, or addressing questions, but a parking agency should also provide an option for physically completing and turning in application, paying a parking ticket, and/or being able to speak with a customer service representative. The wider variety of patrons and the greater number of irregular or first-time visitors, the more alternatives should be made available whenever possible.
8. **Smart communities put parking in context.** Constituents not only seek variety and choice when choosing where to park, how to pay, etc. but also desire to understand the merits and liabilities associated with travel beyond the single-occupancy personal vehicle. Proactive communities present information about parking options within the context of educating the public about the scope of transportation options available to them. Similarly, when contemplating a policy or

action associated with the public parking system, leaders often consider the impacts relative to urban planning, traffic flow, the environment, local commerce, and the municipality's fiscal status against potential benefits to the public parking system.

9. **Communities with dynamic public parking systems include the public in planning and policy development.** As stated, parking is a public good like electrical service and water. Effective organizations create opportunities and mechanisms for inviting public input and participation to build understanding, support, and consensus around initiatives before they are formally presented for action. These mechanisms vary from citizen advisory groups that meet with public parking personnel on a regular basis to stakeholder and focus group charettes to large-scale public forums. Highly communicative and transparent municipalities not only engage the public during the design process, but also report back to the public after an action has been taken or an initiative launched regarding its success or failure.
10. **Efficient public parking agencies focus on managing parking for maximum efficiency before creating new supply.** Exemplary public parking systems are designed and run to promote high levels of utilization regardless of time of day or year by attracting and catering to a wide variety of end users. Whether through pricing incentives, marketing campaigns, facility design and site selection, focused land uses with complimentary utilization profiles, or ongoing analysis of use trends, the most effective public parking managers are constantly looking for ways to fill as many spaces in each facility as possible at all times, ensuring maximum utility from each piece of public infrastructure. In some cases, municipalities may actually reach out to private parking property owners and extend invitations for them to make underused capacity in their facilities open for public use.

Proposed Guiding Principles for Johnson City

Based on DESMAN's conversations with Village officials and stakeholders and review of other plans and initiatives in place in the community, we would propose the following as potential guiding principles:

- A. The primary mission of the public parking system in Johnson City is to support commerce and vibrancy in downtown, accommodating residents, employees, shoppers, diners, guests, and visitors in a fair and equitable manner.
- B. Parking is a public good, and the public policy makers and managers should establish protocols for informing and engaging the public periodically to assure the system's goals are aligned with the community's values.
- C. Private property owners are responsible for addressing the parking needs of their particular property within the limits and boundaries of the zoning ordinances in place at the time of occupancy.
- D. The value of privately-owned parking facilities should be recognized as a resource wherever possible and private parking property owners should be encouraged to make their facilities available to the general public where it benefits public interests.
- E. Parking facility design, management, and policy decisions should incorporate a holistic approach which considers impacts of a proposed action, initiative, and/or policy on the parking system, area development, mobility options, traffic conditions, walking environments, sustainability goals, and municipal fiscal policy in addition to addressing issues specific to a particular area or development.

- F. Parking planning, policy and program development should adopt an approach that considers the range of costs and benefits of all decisions and places a premium on aesthetics, security, user information, accessibility to users of all abilities, and ease of navigation and use.
- G. Parking plans, programs, and policies should seek to encourage the use of public transit, walking, and bicycling, but recognize the limited infrastructure and preference for personal transportation options.
- H. Parking policies and programs should recognize the differences in needs between long-term and short-term parkers and include incentives which encourage use of off-street public parking facilities for long-term parkers and promote availability for short-term parkers seeking proximity.
- I. Parking fees and fines should be structured to achieve measurable parking and transportation demand management goals, be easy to understand and calculate, and should reflect the value of the service and/or severity of the offense. Parking fees and fines should be periodically audited relative to their management goals and adjusted and revised as needed.
- J. Policy makers should recognize that the primary reason for collecting parking revenues is to provide village-wide benefits through an adequate supply of secure and attractive public parking assets; a diverse transportation network; and vibrant and welcoming walking environment. Parking revenues in excess of annual parking system operating expenses and debt service obligations should be reinvested in the community.
- K. The Village is responsible for providing comprehensive information on parking and transportation options. This information should be easily accessible to citizens, businesses, and visitors using both traditional media and new technologies.
- L. Enforcement of parking policies should be delivered fairly, dispassionately, and evenly without regards for the recipient's race, creed, class, religion, gender, sexual orientation, or station. If requested, parking enforcement personnel should be able to explain the logic behind each policy, how it aligns with the Village's goals and objectives, and how the offense conflicted with those goals and objectives to the citation recipient.
- M. Individuals should have access to information on how to appeal a citation they believe was issued in error, afforded due process when submitting the appeal, able to inspect the evidence of the violation, and provided a decision on the appeal in timely manner, including causes for granting or denying the appeal. Individuals with citations overturned on appeal should not be subject to any fees or fines associated with the citation; individual with citations upheld should be responsible for all fees associated with the violations without exception.

OPERATIONS ASSESSMENT

As part of the overall Scope of Work, the consultant team was tasked with evaluating all aspects of how public parking is administered and managed in the Village of Johnson City. This assessment of parking operations touches upon the Village's policies regarding public parking; Zoning Code as it applies to parking requirements; procedures and practices as they apply to parking management, permit programs, and enforcement; communications with the general public; fee rates; fines for violation; and other areas deemed to be germane.

In many cases, assessment of these items includes evaluation relative to parking industry best practices; in some cases, the consultant team also benchmarked current conditions in Johnson City against comparable communities. These communities were selected in collaboration with Village of Johnson City

officials based on a number of criteria including: geography; population and/or population density; median income; and the municipal agency managing the public parking system. DESMAN also looked for communities that had a mix of unregulated (“free”) on-street parking, metered on-street parking, and/or fee-for-use (“paid”) off-street parking. DESMAN also looked for communities with significant healthcare and higher education institutions in or near their downtown. Every community selected was comparable to the Village of Johnson City in one or more of these categories.

Table 1: Comparable Communities

Municipality	Population [2020]	Area [Sq. Mi]	Pop. Density [Pop/Sq. Mi]	Median HH Income	Parking Management Agency	Parking System Size [Spaces] [Budget]	Unregulated Parking	Metered On-Street	Fee for Use Off-Street	Parking Garage	Healthcare Presence	Higher Ed Presence
Johnson City	15,343	4.54	3,382	\$50,611	Police Dept	~1,500 ~\$139K¹	Y	Y	Y	N	Y	Y
Oneonta	13,079	4.36	3,000	\$62,188	Police Dept	~900 \$178K ²	Y	Y	N	Y	Y	Y
Glens Falls	14,830	3.85	3,852	\$64,731	Police Dept	~1,000 \$116K ³	Y	N	N	Y	Y	N
Cortland	17,556	3.89	4,513	\$65,029	Police Dept	~1,100 ~100K ⁴	Y	N	N	N	Y	Y
Elmira	26,253	7.25	3,621	\$41,073	Police Dept	~1,200 ~112K ⁵	Y	Y	Y	Y	Y	Y
Saratoga Springs	28,491	28.07	1,015	\$83,427	Dept of Public Works	~2,800 ~908K ⁶	Y	N	Y	Y	Y	N
Corning	10,551	3.08	3,426	\$59,453	Police Dept	~1,400 \$316K ⁷	Y	Y	Y	Y	N	N
Utica	65,283	16.72	3,904	\$48,212	Division of Parking	~3,600 ~665K ⁸	Y	Y	Y	Y	Y	Y
Endicott	13,667	3.19	4,279	\$40,838	Police Dept	~500 N/A ⁹	Y	Y	Y	N	N	N
Binghamton	47,969	10.48	4,577	\$42,031	Police Dept	~3,000 ~\$1.7M ¹⁰	Y	Y	Y	Y	Y	Y

Notes:

1. Taken from 2024 Adopted Budget as follows: On-Street Meter Fees (~\$64K), 20% of Permits-Other (~\$25K), 25% of Fines (~\$50K).
2. On-Street Parking + Off-Street Parking + Parking Fines for 2024 Budget
3. Combined parking fee collections, permit sales, and violation fines collections (2024)
4. Combined parking permit sales + portions of fines (2025)
5. Combined fines, permit sales, garage revenues, and land lease agreements
6. Combined Parking Ticket Revenue under Commission of Public Safety and Parking Charges under City Center Authority. Seasonal program is expected to increase this to \$1.6M
7. Combined Parking Violations + Parking Space Rental + Parking Meter Income (2024)
8. Garage, lot, on-street fees + permits + parking violations (2024)
9. The Village of Endicott does not publish their budget documents. Accessible only via FOIA request.
10. Parking Ramp Fund revenues (2024).

Review of Existing Ordinances

Ordinances specific to the regulation of parking in the Village of Johnson City can be found in the Village’s Code under Part II (*General Legislation*), Chapter 264 (*Vehicles and Traffic*), under Article III (*Parking, Standing and Stopping*), Article IV (*Parking Meters*), and portions of Article V (*Removal and Storage of Vehicles*) and Article VI (*Miscellaneous Provisions*). General thoughts and reactions to these sections were as follows:

ARTICLE III – Parking, Standing and Stopping

Most of the language within this section is fairly standard and consistent with municipal best practices and similar ordinances among the comparable communities. This article primarily lists regulations and prohibitions with a reference to the appropriate Schedule under the Chapter which carries a listing of the roadways and/or public facilities subject to the regulation or prohibition. Minimum setbacks from fire hydrants, fire lanes, bus stops, driveways, etc. all appear to be appropriate and reasonable. DESMAN did note the following questions and/or exceptions:

- Under 264-29 (Loading Zones) it is unclear whether these designations are in effect 24/7 or just during specific days of the week and/or times of day. This is not addressed in Schedule XX.
- Under 264-32 (Handicapped Parking) there is no reference for the process under which a citizen can petition for designation of a handicapped parking space by the Village near their place of residence nor is there any language dictating under what conditions a handicapped designation may expire or be subject to petition for removal. This language is common in other codes in DESMAN’s experience.

- Under 264-36, it would be helpful to establish current municipal parking lot fees in effect under a separate schedule.
- In DESMAN's experience, it is unusual for municipalities to issue citations and/or fines for failure to inspect and/or register a motor vehicle or park a vehicle with expired inspection and/or registration credentials. In other communities, this is commonly a moving vehicle, rather than a parking, violation.

ARTICLE IV – Parking Meters

Most of the language within this section is fairly standard and consistent with municipal best practices and similar ordinances among the comparable communities. This article primarily lists designation and operations of parking meters with a reference to maintenance, regulations, and collection and delivery of meter deposits. This also includes parking fees, time limits, illegal parking, hours of operation, etc. all appear to be appropriate and reasonable. DESMAN did note the following questions and/or exceptions:

- Under 264-42, the code should include either the map referenced as a separate schedule or a specific schedule listing metered zones and associated time limits.
- Section 264-44 does not specify the appropriate dimensions of a designated metered parking space or make reference to the applicable section detailing these dimensions.
- Section 264-45 should be revised to accommodate the use of multi-space parking meters as currently found along Main Street.
- Under 264-46A, current municipal parking meter fees in effect should be listed under a separate schedule.
- Section 264-46B should be revised to reflect the addition of multi-space and/or electronic meters to Village streets.
- Section 264-49 should be clarified to state that submission of payment for purchase of appropriate time in a meter does NOT negate violations for parking during a snow emergency or other conditions which might take precedence.
- Section 264-50 should be revised to state those regulations and/or prohibitions not subject to suspension outside the stated hours of enforcement.
- Section 264-51 should include a description of how a citizen may petition for suspension of payment and/or enforcement in parking metered spaces, under what conditions this petition may be granted, and any overriding regulations or prohibitions not effected by the grant of temporary suspension.
- Section 264-54 should be amended to exclude on-street parking in metered spaces and a schedule detailing monthly parking fees should be included as a schedule within the chapter.
- Section 264-55 should be amended to accommodate use of multi-space parking meters which do not indicate successful payment via mechanical signal and/or allow payment besides coins. Subsection D should be revised to apply to United States coins and/or bills of any denomination.
- DESMAN would recommend revising Section 264-49 to specify deposit of parking fees into a designated enterprise account or similar fiscal structure.

ARTICLE V – Removal and Storage of Vehicles

Most of the language within this section is fairly standard and consistent with municipal best practices and similar ordinances among the comparable communities. DESMAN did note the following questions and/or exceptions:

- Section 264-60B should include conditions under which a vehicle may be determined to be unattended (e.g., abandoned) within a public parking lot and/or on-street parking area besides obstruction of traffic.
- Section 264-60C should include a definition of the elapsed time period within which an operator may accumulate the defined unpaid parking tickets (i.e., within one calendar year, twelve consecutive months, etc.)
- Section 264-61A should be revised to state that the individual/owner is solely responsible for payment of all towing and storage fees to the agency tasked with towing and impoundment, independent of 264-61C.
- Section 264-62A should specify if there is a deadline or time limit for notifying the owner and what are considered appropriate and/or adequate measures for notification (i.e., registered letter, etc.). This will protect the Village from claims they delayed notification to increase storage fees and/or failed to make adequate efforts to notify the vehicle's owner of the impound.
- DESMAN would recommend revising Section 264-62 to include a process/procedure for registering an impounded vehicle at the Police Department, including the information outlined in 264-62B, in the event that the issued ticket on the vehicle is lost.

ARTICLE VI – Miscellaneous Provisions

The only section under this article germane to parking is 264-64A which lists the fines and penalties associated with various violations. DESMAN would suggest that, in addition to identifying the computer code associated with each violation, the code be amended to include a citation of the pertinent regulation under Article III associated with each violation so there is a clear definition of the ordinance that has been violated. We would also recommend reversing the order of presentation such that the fine, if paid within five business days, represents the base fine and the higher amount represents the fine plus penalty for late payment.

Finally, Article VII Schedules, Section 264-93 should be amended to note that all the municipal lots allow for both hourly and monthly parking between the hours of 8:00 AM and 6:00 PM, Monday through Saturday.

Review of Zoning Ordinances

Theoretically, the parking requirements included in a municipal zoning ordinance are designed to assure that all new development occurring within a defined area is adequately supported by enough parking to assure the project will succeed without interrupting the enjoyment of abutting land uses. In actual practice, many municipalities have come to understand that the parking requirements included in their zoning code result in oversupply of parking supply relative to actual need. This often occurs when the requirements:

1. **Are outdated and based on historical conditions which no longer exist.** For example, the general rule of thumb has been that all office buildings require at least 4.0 spaces for every 1,000 square feet of gross floor area. This rule was informed by research into office-driven parking demand conducted in the 1960's and 1970's by the Urban Land Institute, the Institute of Transportation Engineers, the American Planning Association, and others. Since that research was executed, the use of office space has evolved significantly and subsequent field studies have shown that parking demand slides according to the scale of building. As a general rule, the larger the office building, especially when populated by one or two major tenants, the less efficient the floor layout and therefore the lower the ratio of parking spaces needed per every 1,000 square feet of gross floor area. In point of fact, it is not unusual to find corporate office space which only generate demand equivalent to 2.5 spaces per 1,000 square feet: however, many municipalities continue to enforce the outdated calculation.
2. **Assume a straight accumulation of peak needs by land use rather than organic need according the project's composition.** Many ordinances require the developer to calculate parking need by applying a requirement to each individual land use within the project, then sum those needs to render the amount of parking required to support the project. However, in reality, different land uses may require less parking at different times of day, days of the week, and/or times of year. Even when parking requirements are reflective of current actual usage of a land use at its peak need, this approach can still result in an oversized planned parking supply.

For example, an office building is likely to need all of the parking allocated to it at mid-day on a weekday, while a restaurant will need all the parking allocated to it on a Friday or Saturday evening, and a hotel may not require its full complement of parking until the overnight hours of a weekday or weekend. However, the accumulative model of parking calculation assumes all of these land uses need the peak amount of parking for each component at the same time, requiring the developer to build a supply against conditions which will never occur.

Similarly, office occupancy is historically at its peaks in the late autumn and early winter months, declining around the winter and summer holidays when many employees take vacation time. Inversely, restaurant patronage is often highest during the summer and winter holidays when more people elect to eat out. And, depending on the location and target market for the hotel, peak season may coincide with either business or leisure cycles. In summary, these land uses are unlikely to ever experience their peak annual need for parking simultaneously, but the accumulative calculation mode used in many zoning codes requires the developer to provide parking as if that was exactly what was going to occur.

3. **Do not reflect local dynamics.** Especially in urban centers with good transit service, strong pedestrian amenities, multiple transportation alternatives, high competition for available parking, and/or significant roadway congestion, the percentage of individuals likely to come to a project by single-occupant vehicle will be much lower than if the project was located in a more suburban or rural setting with fewer transportation options, less competition for available parking, and/or low or no traffic congestion. However, many parking requirements, once adopted, are never updated to reflect the changing local dynamics and therefore obligate the developer to provide parking in a dense, urban environment as if the project was located in an open, rural setting.
4. **Are based on criteria other than the adequate provision of parking to support activity.** In some instances, parking requirements have been used to control growth or density by requiring the

developer to dedicate significant portions of their site to the provision of parking, rather than other uses. In order to meet these requirements, the developer is often forced to create large fields of surface parking around their project as this is often the most cost-efficient way to deliver the required supply. These fields of parking become buffers between the development and abutting land uses, and the parking requirements often require so much parking be provided that the height of a development is effectively capped by the size of the lot supporting the project. This then becomes the method a municipality uses to limit the scale of development in a district without actually assigning height or density restrictions.

Increasingly, municipalities have become aware of the inadvertent impacts that outdated or inaccurate parking requirements have had on their communities. For example, while the parking requirements are intended to assure that each project has adequate supply to support its need without impacting its neighbors, provision of parking – especially at no direct cost to the driver – has helped encourage single-occupant vehicle travel in many areas. Though convenient, single-occupant vehicular travel is both environmentally harmful and fiscally unsustainable as municipalities struggle to expand roads and parking assets to accommodate this as the preferred mode of travel. Once an area reaches a certain density, parking requirements can make it very difficult to develop smaller parcels and still accommodate higher, better land uses on the same site of adequate scale to make the project financially viable.

Oversupply of parking due to inappropriate code requirements also have the following impacts:

- ***Stymies infill development.*** In addition to limiting the amount of land on a parcel that can be dedicated to higher, better uses, onerous parking requirements can also prevent infill development as an area reaches maturity. This kind of development is critical when trying to create a dense, walkable and inviting urban neighborhood and can strand a growing community in the suburban phase of evolution permanently, never allowing the municipality to reach its full potential.
- ***Creates issues with runoff and 'heat pooling'.*** In most cases, the cheapest manner to meet parking requirements is through the creation of surface parking lots adjacent to the land use. These lots can result in large areas of impervious surface which collects rain, snow melt, salt from road treatments in colder areas, leaking fluids from the automobiles that park in the lot, trash, and debris. The intermixing of falling or melting precipitation with these other substances can create a polluted hazard that often empties into storm sewers not equipped to filter the runoff before depositing it into open waterways. Even when there is not contamination of runoff, the sheer amount of precipitation collected on these lots and then funneled into a storm water management system can overwhelm that system.

Finally, surface lots, especially those made with asphalt, have the ability to absorb massive amounts of heat during daylight hours and retain it after sunset. In more temperate areas, this can actually influence the local weather patterns. Studies performed in Phoenix, Arizona and its surrounding communities have found that urban areas with a concentration of impervious surfaces tend to post overnight high temperatures that were ten degrees Fahrenheit or higher than temperatures recorded in more rural areas, with less impervious surface, just outside the city. The areas measured at the same latitude and altitude were found to be at least ten degrees cooler, leaving scientists to conclude that the temperature variance was driven primarily from heat radiation escaping impervious areas. This heat retention drove up utility usage in the more

urban areas and depressed commercial activity at shops, restaurants, and other entertainment venues relative to the more rural communities studied.

- ***Erodes efforts to promote alternative modes of transportation.*** By providing ample and often free parking in a district and therefore inadvertently incentivizing travel by single-occupant vehicle, onerous parking requirements also erode interest and participation in alternate modes of transportation. Potential bicyclists are intimidated by vehicular traffic volumes along the same roadways supporting the area. Any type of mass transit which uses common roadways (i.e., bus, taxi, Uber, ZipCar, etc.) will also be impacted by congestion and, if it requires a fare or fee, will be less attractive than the perceptively ‘free’ cost of driving one’s own vehicle. Development of surface parking lots adjacent to land uses in order to meet parking requirements creates a walking environment that forces pedestrians to travel long distances between buildings. Finally, public funds that might otherwise be directed to making alternative modes more attractive or affordable are often instead invested in roadway maintenance and expansion to support single-occupant vehicles driving to and from the area, even though the parking at the destination is paid for privately.
- ***Drives up the cost of development and leasing or purchasing property.*** As of early 2022, the typical construction cost of a basic surface parking lot was roughly \$6,500 per space, while a basic above-grade parking structure was closer to \$20,000 per space and underground garages cost roughly \$50,000 per space for the first level below grade, increasing by a factor of an additional 50% to 100% for each additional level down. When this cost is born by the developer, it must be recovered by including it in the lease or purchase costs of the property. This requirement can drive up the cost of a lease or purchase by as much as a 50% factor over what the developer might charge if they did not have to provide parking to support the development. These inflated lease or purchase costs are in turn incorporated into the costs of goods or services provided out of these land uses if the land use is commercial, so that the tenant or owner can offset the cost premium. The area is such that fee-for-use parking has become an acceptable norm, this cost can be recovered directly; in either case, whether the district is subject to “free” or fee parking, this additional cost to the consumer can be a competitive disadvantage.
- ***Does not ensure a ‘parking problem free’ environment.*** Parking requirements only ensure there is ‘enough’ parking, not that it is well managed. It is not unusual, especially in a district with ‘free’ parking, to find most of the on-street spaces are highly used while large amounts of off-street parking are going unused. This happens because curbside spaces almost always offer superior proximity to most destinations relative to spaces in off-street facilities. If there is not a mechanism to create turnover and availability in these curbside spaces, they will be continuously occupied due to their attractiveness, often by users who are most familiar with area, and/or most likely to arrive early in the day, such as residents or employees. Even when time limits have been employed to segregate long- and short-term parkers, it is not unusual to find visitors, shoppers, diners, business owners, and residents as describing the areas as having a ‘parking problem’.

As municipalities have become aware of the impacts of parking requirements which oversubscribe capacity, the move towards reform has gained traction. Many municipalities have relaxed these requirements or waived them completely¹, either in select districts or across the entirety of the

¹ Buffalo, Canandaigua, and Hudson have all waived their minimum parking requirements and Rochester and Ithaca have waived minimum parking requirements for select districts.

community. The prevailing theory behind these reforms are that the real estate market, often in the form of investors or lenders, is more attuned to the 'true' need for parking to support new development and, in the absence of regulations, will provide enough parking to make the project financially viable with government mandate.

In some more progressive municipalities, zoning codes have been revised to allow for waiver of parking requirements on the condition that the development include components and/or programs supporting alternative transportation modes. These waivers are often presented as 'credits' against minimum parking requirements for including things like on-site car-share services, bicycle storage and maintenance facilities, weatherproof shelters for transit riders, participation in ride-matching services for prospective carpoolers, circulating shuttles between the development and area transit hubs, and other initiatives which would presumably reduce parking demand by promoting alternative transportation modes.

In some instances, a partial waiver or credit against minimum parking requirements may be granted if the developer agrees to make a contribution to a dedicated municipal fund supporting the development of public parking and/or transportation infrastructure; these funds are often termed 'in lieu' as the developer is paying the municipality to provide infrastructure to expand parking supply or mitigate parking demand rather than meeting their full requirement for parking under existing code.

Credits or waivers may also be granted against parking minimums when a developer can demonstrate that some or all of their parking needs can be met through utilization of existing public or private parking spaces within the immediate area, although the developer may be required to present a study (in the case of public assets) or shared use agreement (in the case of private assets) to qualify for the waiver or credit. Alternatively, a developer may qualify for a reduction in their parking requirements if they agree to 'unbundle' the cost of parking for prospective tenants from the cost of rent or purchase of property within the project. Under this scenario, the prospective tenants must pay separately for parking within the property, theoretically creating an incentive for some individuals to consider alternative modes of transportation.

In the case of select cities, *minimum* parking requirements have been banned entirely and maximum parking requirements have been instituted instead to reduce the number of single-occupant vehicles trips and create an incentive for carpooling and other alternative modes of transportation. This policy shift has grown in popularity in major urban centers such as Boston, New York, Washington DC, etc. which already have established, robust transit systems in place and a thriving commercial parking market.

DESMAN reviewed land use and development regulations as they applied to parking in each of these communities from two perspectives. First, DESMAN reviewed regulations for each community to determine if they included the following features or components:

- A. Stated minimum parking requirements ("*Parking Minimums*") by land use;
- B. Limits on the amount of parking that could be built to support a project ("*Parking Maximums*");
- C. The option to meet some or all of the parking requirement through the use of parking facilities located off the primary project site ("*Satellite Option*");
- D. *Standard parking stall dimensions* for a 90-degree parking space;
- E. *Stall dimensions for a parallel parking space*;

- F. Whether some or all of the minimum parking requirements could be waived by a regulating body, provided the developer meets that body's stated conditions ("*Conditional Use Waiver*");
- G. Whether the developer could claim nearby parking spaces owned by a public body to meet some of their parking requirement ("*Public Parking Credits*");
- H. Whether the developer could apply for a reduction in the number of parking spaces required by code if their project included complimentary land uses which would allow the project to operate successfully with a reduced parking supply ("*Intradevelopment Shared Parking*");
- I. Whether the developer could receive credit for supplying the regulating body with documentation demonstrating the parking requirement could be met by using parking spaces attached to another project, development or business that had excess capacity and that the owner of that project, development or business had agreed to allow this use on a permanent basis ("*Interfacility Shared Use*")
- J. The municipality had waived parking requirements in one or more special districts within the community ("*District Waiver*") and would allow developers to build in these areas without meeting any standard minimum parking requirements;
- K. A mechanism which would allow a developer to waive some of their parking requirements in exchange for payment into a dedicated fund to support the development of public parking and/or transportation infrastructure ("*In Lieu Waivers*");
- L. A section within the regulations which specified the number of parking spaces required to on-site ("*bicycle parking*") and/or the design and specifications governing on-site bicycle storage;
- M. A mechanism which would allow the developer to waive some of their parking requirements if they include components, programs or initiatives within their project to promote transit use or other alternative modes of transportation which would mitigate parking demand ("*Transit Reductions*");
- N. Other features or components not included in any of the previous categories listed and not present within the current code governing parking requirements in Johnson City ("*Other Features*").

As shown in **Table 1** on the following page, all of the communities within the survey had *Parking Minimums* as part of their zoning code and half of the communities also included language capping how much parking over minimum requirements the developer could build *Parking Maximums*. These were commonly expressed as a fixed percentage above and beyond the minimum number of required parking spaces, which is appropriate for the Village of Johnson City and the other communities within the comparable set. In larger municipalities, officials have begun to actually set maximum requirements for individual land uses, expressed as ratios of the number of parking spaces per land use unit (most commonly square footage).

Seven of the ten communities in the surveyed set allowed for some form of *satellite parking* which allowed some or all of the required parking spaces to be located away from the project site. The allowable distance between the project and the parking varied by community, and in some cases, by land use and/or district within the community, from 300' up to 1,000'. In most cases, this language was included to facilitate the use of public parking facilities in the area to meet some or all of the parking requirement and/or included to make 'shared parking' arrangements between the project and an existing land use feasible. Allowing for satellite parking to encourage use of existing parking supply in effort to reduce the number of new parking spaces needed is commonly considered a 'best practice' among parking and planning professionals.

Table 1: Comparison of Zoning Code Features Among Comparable Communities

Municipality:	Johnson City, NY ¹	Oneonta, NY ²	Glens Falls, NY ³	Cortland, NY ⁴	Elmira, NY ⁵	Saratoga Springs ⁶ , NY	Corning, NY ⁷	Utica, NY ⁸	Endicott, NY ⁹	Binghamton, NY ¹⁰
Parking Minimums	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Parking Maximums	N	Y	N	Y	N	N	N	Y	Y	Y
Satellite Option	N	Y	Y	Y	Y	Y	N	Y	N	Y
Standard Stall Dimensions (90°)	9'x18'	9'x18'	9'x18'	9'x17.5'	9'x18'	9'x18'	9'x18'	9'x18'	9'x18'	9'x18'
Parallel Stall Dimensions	9'x 21'	9'x23'	9'x21'	8'x22'	9'x23'	9'x20'	9'x23'	9'x24'	9'x21'	9'x21'
Conditional Use Waiver	Y	Y	Y	N	Y	N	Y	Y	Y	Y
Public Parking Credits	Y	Y	N	N	N	N	Y	Y	Y	Y
Intradevelopment Shared Parking	N	N	N	Y	Y	Y	Y	Y	N	Y
Interfacility Shared Parking	Y	Y	N	Y	Y	Y	Y	Y	Y	Y
District Waiver	Y	Y	Y	Y	N	Y	N	N	N	Y
In Lieu Waiver	N	N	N	N	N	N	N	Y	N	N
Bicycle Parking Requirements	N	N	N	Y	N	Y	N	Y	N	Y
Transit Reductions	N	N	N	N	N	Y	N	N	N	Y
Other Features	N	N	N	N	N	Y	N	Y	N	Y

Sources:

1. Village of Johnson City Zoning Code, Article 51 - Off-Street Parking, Loading and Stacking Regulations
2. City of Oneonta Code of Ordinances, Chapter 300 (Zoning), Article II (Zoning Districts Established), Section 300-61 (Off-Street Parking and Loading Regulations), and Appendix 300-101
3. City of Glens Falls Code of Ordinances, Chapter 2020 (Zoning), Article VII (Supplementary Regulations), Section 220-26 (Off-Street Parking and Loading).
4. City of Cortland Code of Ordinances, Chapter 300 (Zoning), Article VII (Off-Street Parking and Loading)
5. City of Elmira Zoning Ordinance, Article VI (Parking) and City of Elmira City-Center Form Based Code, Article VII (General Standards), Section C (Parking Standards)
6. City of Saratoga Springs Unified Development Ordinance - Chapter 10 [Public Draft 2.0 - September 2020]
7. City of Corning Code of Ordinances, Part II (General Legislation), Chapter 240 (Zoning), Section 240-60 (Off-Street Parking)
8. City of Utica Code of Ordinances, Chapter 2-29 (Zoning), Article VI (Off-Street Parking and Loading Requirements)
9. Village of Endicott Code of Ordinances, Chapter 300 (Zoning), Article 51 (Off-Street Parking, Loading and Stacking Regulations)
10. City of Binghamton Code of Ordinances, Chapter 410 (Zoning), Article X (Off-Street Parking, Loading and Storage)

Parking *stall dimensions* for perpendicular and parallel parking spaces were consistent across all the land uses and aligned with the geometrics recommended by the Urban Land Institute, the Institute of Transportation Engineers, the American Planning Association, and other practitioners of parking design.

A *conditional use waiver* is a mechanism that allows the official agency tasked with reviewing project plans, commonly a Planning Board or Zoning Board of Appeals, with broad latitude to grant waivers against minimum parking requirements on a project-by-project basis. These waivers are granted at the discretion of the reviewing agency and are commonly subject to a set of defined conditions imposed by the community in exchange for the waiver. Eight of the ten communities surveyed, including Johnson City, has such language as part of their zoning code.

The application of conditional use waiver is not commonly considered a best practice among urban planners as it does not automatically mandate any specific actions in return for being granted, but is rather awarded at the reviewer's discretion and in accordance with their motives. In some cases, this can be used to compel the developer to include conditions which align with best urban planning practices, but just as often the mechanism is employed to advance a project which does not meet local zoning requirements for interests other than the community's best interests and/or values.

Application of *public parking credits* allows the developer to claim parking spaces located within a public facility to meet a portion of the development's minimum parking requirements. Six of ten of the communities surveyed included language within their code authorizing this action, including the Village of Johnson City. Like conditional use waivers, public parking credits are a mechanism which may or may not be considered a best practice, depending on the details of execution. For example, if the municipality regularly tracks utilization of their parking assets and knows that certain facilities are un- or underutilized at a time when a project needs parking, the application of public parking credits aligns with common best planning and parking management practices.

Inversely, when public parking credits are used to advance a project at the risk of potentially displacing members of the general public, this is NOT considered a best practice. For example, municipalities which allow the application of on-street parking spaces to generate public parking credits are not acting in alignment with commonly accepted best practices. Municipalities which reserve physical public parking spaces and/or portions of a public parking facility to a specific private project for its exclusive use are also acting counter to best practices. Smart towns and cities extend permits to park in public parking facilities as part of the public parking credit program but never grant spaces.

If the Village of Johnson City desires to continue to offer public parking credits against minimum parking requirements in the future, DESMAN would recommend adoption of language similar to that found in the City of Binghamton zoning code to protect their interests as shown in **Figure 1**.

Figure 1: Binghamton Public Parking Credit Language

H. Off-Site Parking Area Capacity. If an applicant requests use of a public parking facility to meet off-street parking requirements, as provided in Section E above, the Planning Commission will request a letter from the Director of Planning to determine the available capacity of the designated facility. The Director of Planning may consider the number of issued monthly parking passes, the number of daily users, fluctuating seasonal demand, potential turnover, frequency of nearby special events, and such other factors as the Director may deem relevant to determine parking capacity. The decision of the Director of Planning shall be binding on the Planning Commission. Any person aggrieved by the Director of Planning's decision may apply to the Supreme Court for review by a proceeding under article seventy-eight of the civil practice law and rules. Such proceedings shall be instituted within thirty days after the filing of a decision by the Planning Department in the office of the City Clerk. Notwithstanding the above, the public parking area at 69 Collier Street is not available to satisfy off-street parking requirements.

Intradevelopment Shared Parking is a process where in the developer undertakes a Shared Parking study performed in compliance with established Urban Land Institute methodology to demonstrate that the project can succeed with fewer than the minimum number of required parking spaces per zoning. The commissioned Shared Parking study details how the particular mix of land uses within the planned project, due to their varied but complimentary parking utilization patterns, can effectively 'share' a reduced parking supply without negatively impacting the project and surrounding properties.

Six of the ten communities surveyed had language within their Zoning Code that specifically referenced this process and the other four communities had language which obliquely authorized this as a valid approach when seeking relief from minimum parking requirements. However, only Saratoga Springs included language detailing how an applicant could go about calculating parking need by shared parking, as shown in **Figure 2** on the next page.

Recommended planning and parking industry best practices both support any application of shared parking strategies. As a model, DESMAN supports the language from Saratoga Springs as exemplary because it provides applicants with a clear process² for pursuing relief via intradevelopment shared use.

² Being able to provide applicants with a defined process for calculating parking reductions (and therefore applying for relief relative to parking minimum requirements) is important if the goal of the community is to get developers to adopt a shared parking approach. Code language which authorizes a shared parking approach, but does not specify a process for preparing a request for reduction and/or description of the criteria applied when evaluating the applicant, is not as effective and is unlikely to be widely used. When the process and/or the evaluating criteria are defined, the applicant has a higher confidence that the waiver will be granted and is therefore more likely to pursue this relief.

Figure 2: Saratoga Springs Shared Parking Language

B. Shared Parking Permission

Off-street parking spaces for separate uses may be provided collectively at the applicant's option at a reduced amount of the total number of spaces provided it meets the calculation of Table 10-D: Shared Parking Calculation. Adjacent sites may use the shared parking option but must provide the City with a copy of the agreement between the property owners, and full site access between sites must be granted 24 hours a day.

1. The required number of spaces for each use is calculated according Table 10-C.
2. The required number of spaces for each use is then applied to the percentages for each timeframe, according to the appropriate land use category, in Table 10-D to determine the number of required spaces. This is done for each timeframe category.
3. The numbers are summed for all uses within each timeframe and the highest sum total in a timeframe is the required number of spaces.

Table 10-D: Shared Parking Calculation						
Land Use Category	Weekday			Weekend		
	Mid-7am	7am-6pm	6pm-Mid	Mid-7am	7am-6pm	6pm-Mid
Residential	100%	100%	100%	100%	100%	75%
Commercial	0%	100%	80%	0%	100%	60%
Restaurant	50%	70%	100%	45%	70%	100%
Hotel/Motel	100%	50%	90%	100%	65%	80%
Indoor/Outdoor Recreation	0%	70%	100%	5%	70%	100%
Office /Industrial	5%	100%	5%	0%	40%	10%
Institutional – Educational Facility	0%	100%	50%	0%	0%	0%
Institutional – Place of Worship	0%	50%	0%	0%	100%	0%

SAMPLE CALCULATION

Example: multi-use office development with the following uses within the development; based on current parking requirements, the number of required spaces is:

Use & Square Footage	Parking Requirement	Number of Spaces Needed
Retail: 15,000sf GFA	1 per 500sf GFA	30 spaces
Restaurants: 2,000sf GFA	1 per 100sf GFA	20 spaces
Hotel/Motel: 60 rooms	1.5 per room	90 spaces
Office: 24,000sf GFA	1 per 300sf GFA	80 spaces
TOTAL SPACES REQUIRED		220 spaces

Using the shared parking calculation, these numbers are plugged into the table and using the percentages allotted to each land use for each time of day, are calculated as total spaces required per timeframe.

Land Use Category	Weekday			Weekend		
	Mid-7am	7am-6pm	6pm-Mid	Mid-7am	7am-6pm	6pm-Mid
Residential	-	-	-	-	-	-
Commercial	0	20	16	0	20	12
Restaurant	15	21	30	13.5	21	30
Hotel/Motel	90	45	81	90	58.5	72
Indoor/Outdoor Recreation	-	-	-	-	-	-
Office/Industrial	4	80	4	0	32	8
Institutional – Educational Facility	-	-	-	-	-	-
Institutional – Place of Worship	-	-	-	-	-	-
Totals	109	166	131	103.5	131.5	122

With a straight parking calculation, 220 spaces are required. However, the shared parking provision allows this example multi-use office development to be constructed by-right with 166 spaces (the highest number of spaces within the various timeframes - the 7am to 6pm weekday timeframe). This is because these timeframe calculations take into account the times of day the various uses utilize the most parking.

Interfacility Shared Parking is when an applicant can demonstrate they are meeting minimum parking requirements per zoning by 'sharing' a portion of an existing parking facility. While intradevelopment shared use describes a type of study used to justify building less parking, *interfacility shared parking* is a strategy of using existing private parking spaces to meet some or all of a project's parking requirements through execution of a legal agreement between parties. This legal agreement binds the owner of an

existing parking facility to the applicant to provide a set number of parking spaces within an existing parking lot or garage, which can then be counted against the project's required parking.

For both intradevelopment and interfacility shared use approaches to work, the land uses sharing the parking supply must be complimentary, which is to say they experience peak needs at different times of the day, days of the week, and/or times of the year. For example, an office building has the greatest need for parking on mid-week weekdays during standard business hours, but needs very little parking outside business hours and on weekends and has lesser needs on a typical Monday and Friday. Office space is most actively occupied outside of traditional vacation periods, when up to 15% of the workforce may be away on holidays. In contrast, a movie theater experiences elevated periods of parking demand on nights, weekends, and holidays, with very little need for parking during standard business hours. These uses are considered complimentary.

In this example, if a developer's project includes office building that needs 75 spaces at mid-day on a Wednesday and the movie theater needs 75 spaces on a Friday night, the developer could build two 75-space lots or one lot with perhaps one hundred spaces between the two buildings. This is an example of intradevelopment shared use. If the movie theater already exists and the applicant is building the office building, rather than building 75 spaces on site to support the office component, the developer could present a legal agreement stating that the movie theater is allowing the project to use 50 spaces within the 75-space lot serving the theater and be granted a waiver which requires the project only provide 25 spaces on site. This is an example of how interfacility shared use works.

Like intradevelopment shared use, interfacility shared use is allowed by either direct language or inference in nine of the ten communities surveyed, including the Village of Johnson City. In each case, the language contained within each community's zoning code reads similar to that in the Village of Johnson City Zoning in that it authorizes the use of shared parking to meet requirements and provides some basic guidelines for where the shared facility should be located and what should be included in the terms of the agreement.

This current language and approach offers limited incentives for a developer to consider shared use with an existing facility because it is so broad and undefined. But the Village of Johnson City should want to encourage the strategy as it would: a) make better use of an underutilized existing resource (e.g., private parking) in downtown, b) be more environmentally sustainable than building new parking facilities, c) bring more street-level activity to downtown, and d) potentially reduce the number of parking spaces the Village might need to build in the future to support a reinvigorated downtown.

The City of San Diego, although not considered a peer or comparable community, does an outstanding job of promoting interfacility shared parking within their zoning code. Section 142.0535³ of Chapter 14 of the San Diego Municipal Code details the conditions and terms for forming a shared use agreement between properties and should be considered a model for developing new language. However, the city goes a step further by providing a 'fill-in-the-blank' shared parking agreement⁴ guiding the process, an example of which is shown in **Figure 3**.

³ See <https://docs.sandiego.gov/municode/municodechapter14/ch14art02division05.pdf>

⁴ See <https://www.sandiego.gov/sites/default/files/legacy/development-services/pdf/industry/forms/ds267.pdf>

Figure 3: City of San Diego Shared Parking Agreement

 THE CITY OF SAN DIEGO RECORDING REQUESTED BY: THE CITY OF SAN DIEGO AND WHEN RECORDED MAIL TO: _____ _____ (THIS SPACE IS FOR RECORDER'S USE ONLY) SHARED PARKING AGREEMENT This SHARED PARKING AGREEMENT ("Agreement") is entered into and effective _____, 20____, by and between _____, _____, and the City of San Diego. RECITALS WHEREAS, pursuant to sections 142.0535 and 142.0545 of the Land Development Code, the City of San Diego specifies criteria which must be met in order to utilize off-site shared parking agreements to satisfy on-site parking requirements; NOW, THEREFORE, in consideration of the recitals and mutual obligations of the parties as herein expressed, _____, _____, and the City of San Diego agree as follows: 1. _____ the owner of the property located at _____, agrees to provide _____ the owner of the property located at _____ with the right to the use of (____) parking spaces _____ from _____ as shown on Exhibit A to this Agreement on property located at _____. 1.1. Applicant: _____ Co-Applicant: _____ Assessor Parcel No: _____ Assessor Parcel No: _____ Legal Description: _____ Legal Description: _____ 2. The parking spaces referred to in this Agreement have been determined to conform to current City of San Diego standards for parking spaces, and the parties agree to maintain the parking spaces to meet those standards. 3. The Parties understand and agree that if for any reason the off-site parking spaces are no longer available for use by _____ will be in violation of the City of San Diego Land Development Code requirements. If the off-site parking spaces are no longer available, Applicant will be required to reduce or cease operation and use of the property at Applicant's address to an intensity approved by the City in order to bring the property into conformance with the Land Development Code requirements for required change for required parking. Applicant agrees to waive any right to contest enforcement of the City's Land Development Code in this manner should this circumstance arise. Although the Applicant may have recourse against the Party supplying off-site parking spaces for breach of this Agreement, in no circumstance shall the City be obligated by this agreement to remedy such breach. The Parties acknowledge that the sole recourse for the City if this Agreement is breached is against the Applicant in a manner as specified in this paragraph, and the City may invoke any remedy provided for in the Land Development Code to enforce such violation against the Applicant. Continued on Page 2 Printed on recycled paper. Visit our web site at www.sandiego.gov/development-services. Upon request, this information is available in alternative formats for persons with disabilities. DS-267 (03-09) Reset Button Page 1	Page 2 of 2 City of San Diego • Development Services Department • Shared Parking Agreement 4. The provisions and conditions of this Agreement shall run with the land for those properties referenced in paragraph 1 of this document and be enforceable against successors in interest and assigns of the signing parties. 5. Title to and the right to use the lots upon which the parking is to be provided will be subservient to the title to the property where the primary use it serves is situated. 6. The property or portion thereof on which the parking spaces are located will not be made subject to any other covenant or contract for use which interferes with the parking use, without prior written consent of the City. 7. This Agreement is in perpetuity and can only be terminated if replacement parking has been approved by the City's Director of the Development Services Department and written notice of termination of this agreement has been provided to the other party at least sixty (60) days prior to the termination date. 8. This Agreement shall be kept on file in the Development Services Department of the City of San Diego in Project Tracking System (PTS) Project Number: _____ and shall be recorded on the titles of those properties referenced in paragraph 1 of this document. In Witness whereof, the undersigned have executed this Agreement. _____ Applicant Date: _____ _____ Party/Parties Supplying Spaces Date: _____ _____ Deputy Director Business and Process Management, Development Services Date: _____ NOTE: ALL SIGNATURES MUST INCLUDE NOTARY ACKNOWLEDGMENTS PER CIVIL CODE SEC. 1180 ET SEQ. Reset Button Page 2
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A *district waiver* is a policy in which the community reduces or waives some or all of their minimum parking requirements within a designated area or zone to encourage development. A classic district waiver is usually granted to an urban zone with a concentration of public parking and may apply to just one land use, multiple land uses, or all land uses within that zone. The Village of Johnson City has a variation of a district waiver under Section 300-51.4 which, with Planning Board approval, exempts new development located within 400' of a municipal parking lot or "designated on-street parking" from meeting minimum parking requirements.

Six of the ten communities surveyed, including the Village, have some form district waiver language within their zoning code currently. In the other communities, the waiver is laid over a defined geographic area, usually downtown, and is often subject to various conditions and/or applicable only to certain projects. For example, the City of Oneonta offers limited district waivers in their Transitional Residential District (R-4) and Downtown Mixed-Use District (MU-1), but only for projects of a certain size. Binghamton⁵ waives minimum parking requirements for existing buildings undergoing a change of use in the Downtown Business District (C-2) as well as any change of use in buildings on the National Register of Historic Places within any district of the city, subject to Planning Commission approval.

⁵ A news item from WITV/WBGH dated August 15, 2024 reported that Mayor Jared Kraham was sponsoring a proposal to eliminate all minimum parking requirements for new development. The report did not specify whether this would be a city-wide waiver or restricted to select districts.

District waivers, as well as the elimination of minimum parking requirements, are championed as a best practice by urban planners who argue that the market can better dictate how much parking a new project needs than a governing body and that decades of parking minimums have led to an oversupply of parking relative to what is actually used or needed on a regular basis. Urban planners will also argue that eliminating parking requirements is step towards conversion to alternate and more ecologically sustainable modes of travel by removing the temptation associated with ‘free parking.’

Parking professionals have found that district waivers can be very successful if implemented under the right set of circumstances and with appropriate safety measures in place. Urban centers with a full complement of goods and services contained within a dense, walkable, and safe environment; strong transit services and/or a broad array of alternative transportation options; and a progressive citizenry have successfully eliminated parking minimums in select areas or across the entire municipality without ill effects. Municipalities with an abundance of underutilized parking and/or vacant properties which can easily be converted into public parking lots have also seen success by waiving minimum parking requirements. The Parking Reform Network⁶, a consortium of planners and activists, provides multiple resources online for researching what municipalities have waived their parking requirements and to what degree.

As an organization, DESMAN supports district waivers and elimination of minimum parking requirements in those communities which are already equipped with mix of goods and services within an urban area, a streetscape which supports a safe and walkable environment, and transit and transportation services which can act as a ‘safety net’ when walking may not be an option. However, in communities without those elements in place, DESMAN does not recommend this as a long-term, sustainable strategy.

In-Lieu Waivers allow prospective developers to get a reduction on the required number of parking spaces by paying a fee to an established municipal fund dedicated to the development of new parking infrastructure and/or transportation services. Of the ten communities surveyed, only Utica included this option in their zoning code as shown in **Figure 4**.

Figure 4: Utica In Lieu Code Language

- (c) Fees-in-lieu of parking. If the City of Utica has established a reserve account or revolving fund to be used for expenses (land acquisition, design/engineering services and construction costs, and maintenance costs) related to adding parking spaces, improving the utilization of existing parking spaces, or reducing the need for new parking to serve the City of Utica, an applicant may pay a fee-in-lieu of parking space development for a portion or all off-street on-site parking. The fee to be paid per parking space shall be paid into such fund. The fee to be paid per parking space shall be determined by the Planning Board or Common Council and published in the “Fee Schedule.”

This strategy is not considered a best practice in the parking industry. In concept, the idea has merit if the municipality is already the nominal provider of parking in a zone or district and has committed to continuing in this role going forward. In practice, DESMAN has found this strategy rarely succeeds for the following reasons:

- a) The language in the code is flawed, leading developers to believe they are purchasing physical spaces in an existing or future public parking lot or garage instead of waivers against minimum parking requirements.

⁶ See <https://parkingreform.org/>

- b) The cost of providing public parking exceeds what a developer is willing to pay for each waiver. Building a new parking above-grade structure in the United States currently costs over \$30,000 per space. Only a select few municipalities in the United States have the real estate market which will allow them to collect the actual cost per space required to build structured parking as an in-lieu fee.
- c) Many municipalities set their in-lieu fees well below what it will cost to build parking at a future date to entice developers and rely on net income from the existing public parking system to subsidize new construction. Eventually, these subsidies overwhelm the system's finances and lead to operational issues.
- d) Parking funds often get diverted to other uses. The idea behind the fund set up for in-lieu fees is that it can be invested and grow over time to cover the cost of parking improvements when they are needed. In reality, it is not uncommon for the municipality to divert those funds to cover other expenses with the promise that they will be returned at a later date. This happens rarely, but even when it does, the lost interest earnings from the missing principal can be enough to destabilize the fund.

Only four of the ten communities surveyed included minimum *bicycle parking requirements* for new development as part of their code. These sections mandate the number of parking spaces for bicycles required to be included within the development as well as the design for those facilities. This is considered a best practice by urban planners and environmental activists because it places the cost and responsibility for providing infrastructure to support bicycling on the private developer, allowing the public agencies in the community to focus on building paths and roadways to accommodate bicycling as an alternative mode of transportation.

Only the two of the ten communities surveyed offered reductions in the number of required parking spaces for projects within walking distance of existing transit services. These *transit reductions* offer relief for developers who believe their project will require less parking than mandated by code as some of the project's future tenants and patrons will come by transit rather than single-occupant private vehicle. In both Binghamton and Saratoga Springs, the language referencing transit reductions is very broad, indicating that the applicant can seek relief if transit service is near the project, but not providing any specifics on how the applicant can demonstrate the relief is warranted or how the application will be evaluated by the Planning Board or other governing body.

The Village of Johnson City could begin developing language for inclusion in their code mandating bicycle parking and offering transit reductions against a future date when those features may be applicable, but current conditions do not indicate this is a necessity.

Other features referenced language in the respective codes of the surveyed communities that DESMAN found unique and/or exemplary and therefore worthy of consideration by Village leadership. These included the following:

- Within the Draft Parking Requirements for the City of Saratoga Springs is a section (10.6.C – Land Banked Parking) which describes how an applicant might seek up to a 25% reduction against minimum parking requirements through the site plan review process. This language allows the developer to provide less than the total number of required parking spaces if they can demonstrate the full number of spaces might not be needed immediately and that the own adequate available land to provide the waived spaces at a later date, if needed.

- The Cities of Utica, Saratoga Springs, and the Binghamton have included language regarding EV (Electric Vehicle) Charging Stations for new development.
 - Utica has mandated new projects must provide two EV ports for every 10 parking spaces required.
 - Saratoga Springs requires that 2% of the parking spaces in any non-residential and mixed-use parking facilities must be “EV ready”. The section goes on to describe what is considered “EV ready” by the city.
 - Binghamton’s code allows that each parking space equipped with an EV charging station can be counted as two standard spaces against the minimum requirements and details necessary features within the EV installation required for the city to consider it a valid station.
- The City of Binghamton zoning code includes a section (410.55) detailing the design and maintenance of surface parking lots which includes very good language dictating how required landscaping must be maintained (410.55.B), how runoff should be handled (410.55.E), and minimum lighting requirements (410.55.G).
- Similarly, DESMAN was impressed with Sections 2-29-168 (Low-Impact Development Parking Lot Design Standards) and 2-29-169 (Landscaping Standards for Parking Lot Stormwater Management) included within the City of Utica zoning code. Many of the mandates included within this section are considered best practices of sustainable parking facility design.
- Finally, under Section 410-51-J of the Binghamton zoning code, the city requires that any project requiring fifty or more parking spaces must also have an approved pedestrian circulation plan in place. This plan details how pedestrians safely pass through the lot once parked or upon returning to their vehicle.

As a second level of analysis, DESMAN also compared the minimum parking requirements mandated by Village of Johnson City Code against minimum parking requirements for each of the comparable communities. DESMAN organized our comparative analysis around twenty-six land uses listed in the Village code and their corresponding requirements in the other municipalities.

In some instances, a direct comparison could not be made as some communities either did not carry a requirement for that specific land use or used a different metric for calculating parking requirements, such as seating capacity and number of employees instead of square footage of floor space for Drinking/Eating Establishments. In those instances, DESMAN marked that category as “n/a” to indicate there was not an applicable metric for comparison.

As a general rule, DESMAN found the minimum parking requirements used by the Village of Johnson City to be aligned with recommended parking demand ratios used within the parking planning and design industry and contained in such standard manuals as Urban Land Institute’s (ULI) **Shared Parking** and the Institute of Transportation Engineer’s (ITE) **Parking Generation**. Those parking demand ratios were developed through the empirical study of existing land uses to develop an accurate representation of ‘average’ (50th percentile) and ‘peak hour’ (85th percentile) needs of each land use.

In terms of comparison to the other surveyed municipalities, the Village’s parking requirements fell within the range of reported values for each land use, and often represented the median of surveyed values as shown in **Table 2**.

Table 2: Comparison of Minimum Parking Requirements Among Comparable Communities

Municipality:		Johnson City, NY	Oneonta ² , NY	Glens Falls ³ , NY	Cortland ⁴ , NY	Elmira ⁵ , NY	Saratoga Springs ⁶ , NY	Corning ⁷ , NY	Utica ⁸ , NY	Endicott ⁹ , NY	Binghamton ¹⁰ , NY
Land Use	Metric										
1-2 Family Residential	Spaces/Unit	2.00	2.00	2.00	2.00	2.00	2.00	2.00	1.00	2.00	1.00
Senior House	Spaces/Room	1.30	2.00	1.00	3.00	1.00	2.00	1.00	0.50	1.30	1.00
Multi-Family Residential	Spaces/Unit	1.50	1.50	1.50	1.50	2.00	2.00	1.50	1.00	1.50	1.50
Boarding Houses	Spaces/Unit	0.50	1.00	1.00	1.00	1.00	TBD	1.00	0.50	0.50	1.00
Schools	Spaces/Classroom ¹	3.00	2.00	1.00/12 seats	n/a	5.00	TBD	5.00	2.00/1,000 sf	2.00	0.20/student
Place of Worship	Spaces/3 Seats	1.00	1.67	1.00	1.33	1.83	1.00	1.00/100 sf	0.50/1,000 sf	1.00	1.00/100 sf
Community Center	Spaces/1,000 sf	6.00	n/a	3.00	4.00	6.67	TBD	3.00	1.00	6.00	4.00
Library	Spaces/1,000 sf	2.00	n/a	3.00	4.00	3.00	TBD	3.00	1.00	2.00	2.00
Hospital	Spaces/Bed	1.00	n/a	n/a	2.00	25.00	TBD	1.25	1.00	1.00	0.25
Medical/Clinic Office	Spaces/1,000 sf	5.00	3.00	3.00	2.50	3.00	TBD	3.00	2.00	5.00	2.00
General Retail	Spaces/1,000 sf	4.00	5.00	2.00	3.00	3.00	5.00	3.00	2.00	4.00	2.00
Food Store	Spaces/1,000 sf	5.00	5.00	2.50	3.00	3.00	5.00	3.00	2.00	5.00	2.00
Convenience Store	Spaces/1,000 sf	5.00	5.00	2.00	3.00	3.00	5.00	2.00	2.00	5.00	2.00
Shopping Center	Spaces/1,000 sf	4.50	5.00	4.00	n/a	6.67	5.00	6.67	2.00	n/a	1.00
Bank	Spaces/1,000 sf	2.00	3.00	n/a	4.00	2.00	5.00	3.00	2.00	2.00	2.00
Bar/Tavern/Night Club	Spaces/Seat	1.50	1.00/200 sf	1.00	1.00/100 sf	1.00/60 sf	0.50	1.00/100 sf	3.00/1,000sf	1.50	1.00/250 sf
Barbershop/Beauty Salon	Spaces/Seat	1.50	n/a	n/a	n/a	n/a	n/a	n/a	n/a	1.50	n/a
Dry cleaning/Laundromat	Spaces/1,000 sf	2.00	5.00	2.00	4.00	3.00	n/a	3.00	2.00	2.00	2.00
Hotel/Motel	Spaces/Room	2.00	1.00	1.00	1.00	1.00	1.50	1.00	1.00	2.00	n/a
Funeral Homes	Spaces/1,000 sf	10.00	15.00	1.00/3 seats	1.00/3 seats	2.00	10.00	3.00	1.00	10.00	n/a
Office	Spaces/1,000 sf	5.00	3.00	3.00	4.00	3.00	6.00	3.00	2.00	5.00	2.00
Restaurant	Spaces/Seat	0.50	1.00/200 sf	1.00	1.00/100 sf	1.00/60 sf	0.50	1.00/100 sf	3.00/1,000sf	0.50	1.00/250 sf
Service/Gas Station	Spaces per bay	2.00	n/a	4.00	1.00/100 sf	n/a	TBD	2.00	1.00/1,000 sf	2.00	1.00
Vehicle Sales	Spaces/1,000 sf	1.00	n/a	1.00	3.00	3.00	TBD	3.00	0.50	1.00	1.50
Theater/Auditorium	Spaces per Seat	1.00	1.00	1.00	1.33	0.83	n/a	1.00/100 sf	2.00/1,000 sf	0.40	n/a
Industrial/Manufacturing	Spaces/1,000 sf	1.00	1.00	1.00	1.00	1.20	5.00	1.20	0.50	1.00	1.20

Notes:

1. A classroom consists of 1 teacher and 2 students.
2. Oneonta senior homes require 1 car per employee and one per patient. For unspecified uses, they require 3 cars for each 1,000 sf GFA.
3. Glens Falls goes by increments of spaces per every 300 square footage instead of KSF.
4. Cortland goes by increments of spaces per every 400 square footage instead of KSF.
5. Elmira's hospital requirement: one space for each employee on major shift, plus 25 spaces per bed. Based on 300 sf.
6. TBD= "To be determined by Planning Board during special permit review" for anything related to municipal or public recreational buildings, public safety or health buildings, or automobile sales/services.
7. Corning goes by increments of spaces per every 300 square footage instead of KSF.
8. Utica Works Cited: <https://ecode360.com/14016198#14014457>
9. Endicott almost identical to Johnson City codes.
10. Binghamton Works Cited: <https://www.binghamton-nv.gov/government/elected-officials/city-charter-and-code-of-ordinances/chapter-410-zoning#A10>

Transient Parking Rates

Best practices as recognized by parking professionals for transient (hourly) parking rates include the following:

1. On-street parking offers the greatest proximity to most destinations, but by its nature has limited capacity. Off-street parking facilities can offer better capacity, but can rarely offer the same proximity to a destination. As individuals unfamiliar with an area will automatically seek to park within line of sight of their destination and these individuals are often first-time or infrequent discretionary visitors such as diners, shoppers, tourists, event attendees, and the like, ideally on-street parking spaces should be available to ensure a good parking experience. However, long-term parkers such as residents, business owners, employees, and students also prize proximity to destination and are often the first to arrive in an area. These non-discretionary visitors who are familiar with the area can park beyond line of sight of their destination, but will not typically do so without some incentive⁷.

⁷ Often time-limits are used in lieu of metering to limit how long a vehicle can dwell in an on-street space and create turnover, and therefore availability, along the curb. This strategy relies on consistent and regular patrolling and ticketing to assure compliance with the posted time limits, which the public can perceive as 'predatory' behavior by law enforcement officers. Metering allows the individual the option to pay a nominal fee to be sure they are exempt from being ticketed, with the side benefit of making the individual conscious of the time allowed to park. In a metered system, the general public is more likely to see individuals cited for parking violations as violators rather than victims as they made a choice not to make payment, abide by

2. To ensure that on-street capacity is available for discretionary visitors, the cost of an hour's worth of on-street parking should then be greater than the same length of time in a nearby off-street lot. This recognizes the greater proximity and limited capacity of on-street parking relative to off-street facilities and creates an incentive for longer-term parkers to use the off-street facilities. There is no fixed ratio for setting prices for on- and off-street parking to assure turnover in curbside spaces.
3. Similarly, the rate for hourly parking in areas where utilization is high should be more expensive for the same length of time in an area where utilization is lesser, especially if the two areas are within easy walking distance. This strategy of demand-responsive pricing helps balance parking supply and demand across the public parking system. Again, there is no fixed ratio for how much more the rate in a highly utilized facility should be than in a lesser used facility and, in some cases, the lesser used facility may be free.
4. Hourly rates should be set at common intervals to simplify payment. A rate structure that charges in increments of \$0.25 or \$1.00 is going to be easier to pay because these are common denominations occurring within the general public. Rates that charge in increments of \$0.10, \$0.05, \$0.01, etc. can make simple payment far more challenging.
5. Hourly rates should also increase by predictable intervals to make it easier on the parker to calculate the amount of time they need to purchase. A rate structure that operates as a fixed \$0.50/hour will be easier to understand for the average consumer than one that collects \$0.50 for the first hour, \$0.25 for the second hour, and \$0.10 for each hour thereafter. For the average individual, the first-rate structure is easier to understand and use than the second, even though they will end up paying \$1.50 for a three-hour stay under the first structure and only \$0.85 for the same stay under the second structure.

Johnson City currently charges the same rate (\$0.50/hour) for both on- and off-street parking. Maximum time limits for on-street areas range from 2 hours (along Main Street) to 6 hours (in the Downtown and Healthcare Sub-Areas). The Main Street Lot also has a two-hour maximum length of stay during hours of enforcement (8:00 AM – 6:00 PM, Monday through Saturday), but the other Village public parking lots allow stays up to eight hours.

As **Table 3** on the following page shows, half of the surveyed communities do not charge for on-street parking and three do not charge for off-street parking. Of those that do charge for parking, the Village's rates are in the median for the range. Only Corning, Utica, and Binghamton charge different rates for on- versus off-street parking. Saratoga had the highest hourly rates, but only collects fees during the summer tourist season. Utica, which once had metered on-street parking, only charges for off-street parking now, but has limited maximum length of stay on-street to just 90 minutes.

Table 3: Surveyed Transient Parking Rates Among Comparable Communities

Municipality:	Johnson City, NY	Oneonta, NY	Glens Falls, NY	Cortland, NY	Elmira, NY	Saratoga Springs, NY	Corning, NY	Utica, NY	Endicott, NY	Binghamton, NY
# of Public Garages:	0	1	1	0	1	5	1	3	0	4
# of Public Lots:	5	5	7	9	2	5	3	2	0	4
# of On-Street Spaces:	~1,200	~300	~300	~200	~200	~1,300	~350	~500	~150	~1,100
Hourly On-Street:										
- Fee (hr)	\$0.50	\$0.25 ³	Free	Free ¹²	\$0.50 ¹⁵	\$2.00	Free	Free	Free ²⁴	\$1.00 ²⁵
- Time Limit	2-6 Hours ¹	1 hour ⁴	2-4 hours ⁸	2 Hours ¹³	1-2 hours	2-24 hours ¹⁸	2 Hours	1.50 hours ²²	1-2 Hours	2 Hours
- Hours of Enforcement	8a-6p, M-Sat	8a-6p, M-Sat	6a-2a, M-Sun ⁹	6a-9p, M-F	9a-5p, M-Sat	8a-6p, M-Sun	8a-6p, M-Sat	9a-5p, M-F	N/A	8a-6p, M-Sat
- Day Passes	N/A	N/A	N/A	N/A	N/A	N/A	No	N/A	N/A	N/A
Lots:										
- Fee (hr)	\$0.50	\$0.25 ³	Free	Free	\$0.50	\$2.00 ¹⁹	\$0.40-\$0.65 ²¹	\$2.00 ²³	Free ²⁴	\$2.00 ²⁶
- Time Limit	2-8 hours ²	2-4 hours ⁵	2-3 hours ¹⁰	3 hours ¹⁴	2 hours	3 hours	N/A	N/A	N/A	N/A
Garages:										
- Daily Rate	N/A	N/A ⁶	Free ¹¹	N/A	\$0.25-\$0.75 ¹⁶	\$0.00-\$2.00 ²⁰	Free	\$2.00	N/A	\$1.00-\$2.00 ²⁷
- Night Owl	N/A	N/A ⁷	Free ¹¹	N/A	\$3.00 ¹⁷	N/A	Free	N/A	N/A	N/A
- Daily Max	N/A	N/A ⁶	Free ¹¹	N/A	\$5.00	\$15.00	Free	\$18.00	N/A	\$20.00

Notes:

- Maximum LOS varies by street from 15 minutes up to 3 hours. Some meters in the Healthcare Sub-Area state a maximum LOS of six hours.
- Per 264-93, all municipal lots are permit use only between 2:00 am and 6:00 am. Per 264-19, no vehicle may be parked for more than eight hours in the same space between 7:00 AM and 12:00 AM.
- Oneonta has established parking meter zones per ordinances for nine on-street areas and also meters the Wescott Lot. Maximum LOS is 1 hour at on-street meters.
- With the exception of areas designated for 'short-term' (15 minutes) parking.
- Different spaces in different lots have different maximum LOS; also hours of enforcement vary from 6-7 AM to 8 PM, Monday through Saturday
- Parking is free in municipal garages, but subject to different periods of closure and 2-4 hour time limit.
- Parking is free after 8 PM. Overnight parking may be allowed by facility, but no vehicle may remain in the same space for more than 24 hours without a permit.
- 2 Hour maximum on Glen Street Business District; 2-4 hours in surrounding streets; unrestricted along Washington and Lawrence Streets.
- Parking enforced 9a-6p in Glen Street Business District; 6a-2a everywhere else. No overnight (2a-6a) anywhere on street.
- Maximum LOS varies by facility; subject to enforcement 9a-6p weekdays.
- Municipality may charge a nominal flat rate during certain special events.
- As recently as 2023, Cortland was considering instituting paid parking on key streets in their downtown, but has not yet implemented it.
- There are a limited number of 12-15 minute zones near select businesses.
- Most lots have a three-hour maximum between 8a-9p. Several allow 'alternate all-night parking' (Article VII, 11-62)
- First 15 minutes is free
- \$0.50 for the first two hours, \$0.75/hour thereafter up to \$5.00
- Overnight rate in effect after 10:00 PM. Special events are also a \$3.00 flat rate.
- Most short-term parking areas are 10-15 minutes
- Rates in effect during Seasonal Parking Program (Memorial to Labor Day).
- First hour is free, \$2.00/hour thereafter until maximum is reached
- Rate varies by lot, some lots subject to a 2-hour or 5-hour maximum LOS
- Within the Downtown Parking Zone, all on-street parking is limited to a maximum LOS of 90 minutes unless otherwise exempted.
- Rate per hour up to a daily maximum of \$18.00
- Endicott Code includes provisions for establishment of a Parking Authority, a Parking Meter Fund, and metered on- and off-street parking.
- Meter increase as of January 2020, up from \$0.50/hour
- Collier Street Lot collects \$2.00 for the first hour + \$1.00/hour thereafter to a maximum of \$20.00. Lot also offers \$5.00 parking for overnight parking.
- Parking garages is \$2.00 for the first hour, \$1.00/hour thereafter up to the Daily Maximum.

Monthly Permit Rates

Best practices as recognized by parking professionals for monthly parking rates include the following:

1. The cost of a monthly parking permit for on-street parking should be equivalent to the amount that space would generate as a metered parking space for one month during the hours of enforcement. For example, a metered space at \$0.50/hour that is occupied for 60% of a 10-hour day, five days a week should have an equivalent monthly permit cost of \$60.00⁸.
2. The cost of a monthly parking permit for off-street parking should follow the same calculations but offer the holder a discount relative to the total cost for parking at hourly rates. For example, if the hour rate for an off-street facility is \$0.50/hour and one assumes the typically permit holder is parking 8 hours/day, 5 days/week for 4 weeks every month, they could be paying up \$80.00 per month in transient fees to park under the hourly rate structure. To encourage these drivers to purchase a monthly permit, the operator then offers the permits at \$56.00, which is a 30% discount from the cost of parking at hourly rates. This cost savings of \$24.00/month is then the incentive to get long-term parkers to buy a permit.
3. Permits costs should be pro-rated relative to the privileges they afford. For example, if the base permit described above is good to park in a facility at any time during the month (24/7), then a permit which restricts the holder to only parking between 6:00 AM and 6:00 PM, Monday through Friday should be priced lower and a permit which allow the holder to only parking on nights and weekends should be lesser still. As with transient rates, there is no fixed ratio for these reductions, but as general rule weekday only permits are roughly 20% lower than 24/7 permits and overnight permits are about half the cost of 24/7 permits. In our example, this would make the weekday permits ~ \$45.00 and the overnight permits would be \$28.00 relative to the \$56.00 24/7 permit.
4. Reserved parking spaces should be priced significantly higher than permits which offer 24/7 access, but designated space to park in. Again, there is no fixed ratio established for the difference, but in DESMAN's experience, reserved parking permits typically 20% or more higher than standard permits (~ \$67.00 in our example).

Johnson City offers permits to park in Village lots at a rate of \$40.00/month which allows the holder 24/7 access, including the right to park in the lots between 2:00 AM and 6:00 AM which is prohibited to general transient parkers. The current ordinances also contain language authorizing the Village to issue permits to park on-street at the same rate, but with some exclusions.

The only peer community which sells on-street parking permits is Glen Falls and only in the Pine Street Designated Area. Both Utica and Binghamton issue on-street permits as part of a Resident Parking Permit program for a yearly fee, but these can only be attained by meeting certain criteria.

Only Oneonta does not have an off-street parking permit program. The Saratoga Spring's permit program is limited only to municipal residents, at no cost, and allows them to park in off-street public lots and garages for free. Endicott has a program detailed within their ordinances, but no information about it publicly available. As shown in **Table 4** on the next page, the current rate for monthly permits collected by the Village of Johnson City is in the median of the range of rates collected in the other surveyed municipalities.

⁸ 10 hours/60% = 6 x \$50/hour = \$3.00/day x 5 days/week = \$15.00/week x 4 weeks/month = \$60.00

Table 4: Surveyed Monthly Parking Permit Rates Among Comparable Communities

Municipality:	Johnson City, NY	Oneonta, NY	Glens Falls, NY	Cortland, NY	Elmira, NY	Saratoga Springs, NY	Corning, NY	Utica, NY	Endicott, NY	Binghamton, NY
# of Public Garages:	0	1	1	0	1	5	1	3	0	4
# of Public Lots:	5	5	7	9	2	5	3	2	0	4
# of On-Street Spaces:	~1,200	~300	~300	~200	~200	~1,300	~350	~500	~150	~1,100
On-Street Permits:										
- Resident	N/A	N/A	N/A	N/A	N/A	N/A	N/A	\$100.00 ¹³	N/A ¹⁵	\$10.00 ¹⁶
- Resident Guest	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A ¹⁵	N/A ¹⁷
- General (month)	\$40.00 ¹	N/A	\$32.00 ⁴	N/A	N/A	N/A	N/A	N/A ¹⁴	N/A ¹⁵	N/A
Off-Street Permits:										
- Garage (month)	N/A	N/A	\$30.00 ³	\$25.00 ⁷	\$25.00-\$30.00 ⁸	N/A ¹⁰	\$37.00 ¹¹	\$50.00	N/A ¹⁵	\$90.00
- Surface Lot (month)	\$40.00 ²	N/A	\$16.00 ⁵	\$30.00 ⁶	\$50.00 ⁹	N/A ¹⁰	\$25.00-\$50.00 ¹²	\$50.00	N/A ¹⁵	\$90.00

Notes:

1. Per 264-54, individuals may purchase a 'permit' from the City Clerk that will allow them to park on-street in a metered space, with some exclusions.
2. Anyone can buy a permit to park in one of the Village's lots.
3. Sold by the quarter for the Clinton Avenue Garage
4. Sold by the quarter for Pine Street designated area
5. Sold by the quarter for any City-Owned Lot
6. Allows for any resident to park in any municipal lot, all day and overnight
7. Allows the holder to park in any municipal lot between 8a and 6p (Day Permit) or 4p and 2p (Night Permit).
8. Rates per month for Residential and/or Business Permit in Centertown Garage
9. Parking in the 900 East Water Street Lot; can also purchase permits for one week (\$30.00) or one night (\$5.00)
10. Permits are available only to residents so that they can park for free in any municipal lot or garage during the summer season
11. Good for the Centerway Garage; requires a one-time \$5.00 set-up fee
12. Resident Permit rate is always \$30.00/month in those lots which allow it. General permit rates vary from \$25.00 to \$50.00/month by facility
13. On-street overnight parking is only allowed by special exception under Article VII, Division 1, Section 2-16-216. Permit is \$100.00/year but can be pro-rated in increments of \$25.00/quarter
14. Without a valid permit, all parking on the street is prohibited between 2 AM and 6 AM without exception.
15. No information publicly accessible. Ordinances reference parking permit programs as authorized, but provide no further detail.
16. Article X in Chapter 400 of the Binghamton Code authorizes creation of a Residential Parking Permit Program, with permits at \$10.00/year
17. 400-105 B requires at least 20% of spaces in the RPP zone be open for public use with a maximum LOS of 90 minutes

Violations and Fines

Best practices as recognized by parking professionals for parking fines include the following:

1. Fines should reflect the relative harm/risk the violation poses to the community. For example, parking at a meter without paying should not bear the same fine as parking in a fire lane or blocking a fire hydrant; the fine for the later should be much higher.
2. Fine structures should include features which incent the individual receiving the citation to pay it within a reasonable time span after the citation is received. This is to reinforce the consequences of the violation in hopes the individual will not repeat the act. Fines should be corrective, not punitive, whenever possible.
3. After a certain span of time between the issue of the citation and payment of the fine has elapsed, the fine loses its efficacy as a corrective measure. Fine structures should include an escalation feature then that reinforces the opportunity cost of the violation when the recipient delays payment.
4. Ordinances should include language allowing for an escalation of fines associated with repeat offenses to future reduce recidivism. It is important that this language clearly defines how the municipality classifies 'repeat offenses' to reduce appeals and challenges.
5. When setting parking fines, the municipality should be cognizant of how much the fine costs relative to the cost of complying with local laws. In some cases, DESMAN has seen municipalities increase the cost of hourly parking or monthly permits without adjusting the fines for non-payment, exceeding posted time limits, etc. such that the fine is less costly than complying with posted regulations.
6. The parameters for effecting the immobilization (e.g. booting) and/or impoundment (e.g. towing) of a vehicle for unpaid citations should be clear and easy to understand.
7. The cost for immobilization and/or impoundment should be substantial to prevent recurrence of the violation relative to any escalation factors for delayed or late payment.

The Village of Johnson City has a robust fine structure which incents individuals to appeal or pay their citations within five days of receipt or face significant escalation. The initial fines are reflective of relative harm to the community, with life/safety offenses such as fire lane and fire hydrant carrying much higher fines than other offenses. The criteria for immobilization and/or impoundment are clear and there are significant surcharges associated with both actions.

In comparison to the comparable communities surveyed, the fines levied for individual offenses in the Village of Johnson City are in the middle of the range of fines assessed in other upstate New York cities, towns, and villages. Similarly, escalation rates and immobilization surcharges were mid-range relative to the other surveyed communities.

The Village was one of only four communities that set a dollar figure of unpaid violations as part of their criteria for immobilization and/or impoundment; five communities based on their criteria on the number of unpaid parking violations and one community did not list any criteria. It should be noted that the Village's criteria included a number of unpaid tickets or a dollar figure threshold, allowing for flexibility in determining when to boot or tow. The survey results are shown in **Table 5** on the following page.

Table 5: Surveyed Parking Violation Fines Among Comparable Communities

Municipality	Johnson City, NY	Oneonta, NY	Glens Falls, NY	Cortland, NY	Elmira, NY	Saratoga Springs, NY	Corning, NY	Utica, NY	Endicott, NY	Binghamton, NY
# of Public Garages:	0	1	1	0	1	5	1	3	0	4
# of Public Lots:	5	5	7	9	2	5	3	2	0	4
# of On-Street Spaces:	~1,200	~300	~300	~200	~200	~1,300	~350	~500	~150	~1,100
Violation (Initial Fine)	¹									
Expired Meter: ²	\$20.00	\$35.00	N/A	N/A	\$15.00	\$25.00	\$5.00 ²⁷	\$50.00	N/A	\$20.00 ³⁵
Misparking: ²	\$20.00	\$35.00	\$30.00	\$35.00	\$20.00 ¹⁸	\$35.00	\$10.00	\$50.00	\$15.00	\$30.00 ³⁶
Overtime (Meter): ²	\$20.00	\$35.00	N/A	\$30.00	\$20.00 ¹⁹	\$25.00	\$10.00	\$50.00	\$15.00	\$20.00 ³⁵
Overnight Parking: ²	\$20.00	\$35.00	\$10.00	\$35.00	\$15.00	\$35.00	\$10.00	\$50.00	\$15.00	\$45.00 ³⁷
Near Stop Signs: ²	\$20.00	\$35.00	\$30.00	\$35.00	\$25.00	\$35.00	\$15.00	\$50.00	\$20.00	\$45.00 ³⁷
No Parking Zone: ²	\$20.00	\$35.00	\$30.00	\$35.00	\$30.00 ²⁰	\$35.00	\$15.00	\$50.00	\$20.00	\$45.00 ³⁷
Loading Zone Violation: ²	N/A	\$35.00	\$30.00	\$35.00	\$20.00 ²¹	\$35.00	\$15.00	\$50.00	\$20.00	\$45.00 ³⁷
Uninspected Vehicle: ³	\$25.00	N/A	N/A	\$30.00 ¹⁴	N/A	N/A	N/A	\$50.00	N/A	N/A
Unregistered Vehicle: ³	\$25.00	N/A	N/A	N/A	N/A	N/A	N/A	\$50.00	N/A	N/A
Permit Parking Only: ²	\$20.00	\$35.00	\$30.00	\$35.00	\$30.00 ²⁰	\$35.00	\$15.00	\$50.00	\$20.00	\$45.00 ³⁷
Blocking Driveway: ²	\$20.00	\$35.00	\$15.00	\$40.00	\$35.00	\$50.00	\$15.00	\$50.00	\$20.00	\$45.00 ³⁷
Blocking a Bus Stop: ²	\$20.00	\$35.00	\$30.00	\$35.00	\$30.00	\$35.00	\$15.00	\$50.00	\$20.00	\$45.00 ³⁷
Fire Lane Violation: ⁴	\$50.00	\$50.00	\$30.00	\$35.00	\$50.00	\$35.00	\$20.00	\$50.00	\$20.00	\$45.00 ³⁷
Fire Hydrant Violation: ⁴	\$50.00	\$50.00	\$30.00	\$40.00	\$50.00	\$100.00	\$25.00	\$50.00	\$20.00	\$45.00 ³⁷
Snow Emergency Violation: ²	\$50.00	\$35.00	\$30.00	\$35.00	N/A	\$35.00	\$25.00	\$50.00	\$25.00	\$50.00
Handicapped Parking Violation: ⁵	\$125.00	\$100.00	\$50.00 ¹²	\$85.00	\$115.00 ²²	\$150.00	\$75.00	\$60.00	\$65.00	+\$125.00 ³⁸
Escalation Schedule										
- After 5 days	+\$20.00-\$25.00	N/A	N/A ¹³	+\$5.00-\$15.00 ¹⁵	+\$10.00-\$25.00 ²³	N/A	Doubles ²⁸	\$10.00-\$50.00 ³⁰	+5.00	+25.00-\$60.00
- After 30 days	+\$15.00 ⁶	Doubles ¹¹	N/A ¹³	+\$15.00-\$30.00 ¹⁶	N/A	Doubles ²⁵	N/A	\$5.00-\$25.00 ³¹	+20.00 ³³	+\$5.00-\$40.00
- After 60 days	N/A	Doubles ¹¹	N/A ¹³	N/A	N/A	N/A ²⁶	N/A	N/A	N/A	N/A
Immobilization Policy										
- Surcharge	\$50.00 ⁷	N/A	N/A ¹³	\$100.00	\$50.00	\$40.00	N/A	\$150.00	\$25.00	\$125.00
Towing Policy										
- Threshold	\$200.00 ⁸	\$250.00	N/A ¹³	\$100.00	N/A ²⁴	\$350.00	N/A ²⁹	N/A ³²	N/A ³⁴	N/A ³⁹
- Surcharge	\$50.00 ⁹	N/A	N/A	\$70-170/hr ¹⁷	\$50.00	N/A	N/A	\$175.00	\$25.00	\$50.00
- Impound Fees	N/A ¹⁰	N/A	\$5.00/day	\$40.00/day	\$20.00/day	N/A	N/A	\$45.00/day	N/A	\$50.00/day

Notes:

1. Fine if paid within 5 business days of issue.
2. After 5 business days, the fine amount doubles
3. If vehicle is in arrears 60 days or less; vehicles with expired credentials over 60 days pay double the base fine. Fees not paid within 5 business days increase by \$25.00
4. If not paid within 5 days, a \$20.00 surcharge is added.
5. Fines increase by \$30.00 if not paid within five business days. A second offense occurring within 24 months is subject to a \$170 base fine, increasing to \$200.00 after five business days if not paid.
6. Failure to pay or contest within 30 days is considered an admission of guilt and could result in issuance of an arrest warrant
7. Booting is used in additional and/or supplemental to towing
8. Three or more unpaid tickets OR \$200.00 or more in unpaid fines and penalties
9. Assessed if the offense falls under "Emergency Removal:
10. Set by private party
11. Base fines double if not paid within 30 days of issue. After 60 days without payment, the fines double again.
12. For the first offense. If the individual reoffends within 2 years, the penalty doubles
13. Ordinances do not specify any escalation schedule for non-payment, any surcharges for booting or towing, and any criteria for towing a parking scofflaw.
14. Escalates to \$55.00 if inspection is more than 60 days lapsed
15. Fines increase by \$5.00-\$15.00 if not paid within 7 days of issue
16. Fines increase by an additional \$15.00 to \$30.00 if not paid within 30 days of issue
17. Depending on the time of day the tow takes place, the cost could be anywhere from \$70.00 to \$120.00/hour. An additional surcharge of \$50.00/hour above and beyond this is allowed under special circumstances.
18. Overlapping another meter space. Parking too far from the curb is \$25.00. Parking between the sidewalk and curb is \$25.00. Parking on the sidewalk is also \$25.00
19. If an individual receives three or more overtime meter violations in a calendar month, fines escalate to \$60.00/violation.
20. Falls under "Parking in Prohibited Areas". Second offense is \$45.00, third offense is \$60.00.
21. Fine for the first offense. Second offense is \$45.00, third offense is \$60.00.
22. First offense fine + \$30.00 NYS surcharge. Fine doubles after 14 days if not paid. Second offense is \$150.00, third offense is \$200.00 for base fine, plus surcharge and escalation.
23. Overtime meter violation increases by +\$10 if not paid in 7 days. Additional surcharges are incurred at 14 days (+\$5.00), 21 days (+\$5.00), and 27 days (+\$5.00).
24. A vehicle with three or more outstanding parking tickets in 18 months can be reported to the DMV, immobilized, or towed.
25. Parking tickets not paid within 20 days double.
26. Parking fines not paid after 180 days go to private collections.
27. \$5.00 for the first violation, \$15.00 if a second violation is incurred within 18 months, \$25.00 if a third violation is incurred within 18 months.
28. Fines double if not paid within 14 days of issuance
29. A vehicle with three or more outstanding and unpaid parking tickets may be subject to towing and impound.
30. If handicapped violation is not paid within 72 hours, the fine will increase by \$10.00. All other fines double if not paid within 72 hours.
31. Handicapped fines not paid within 10 days increase by an additional \$5.00. All other fines increase by an additional \$25.00 if not paid after 10 days.
32. Three or more unpaid tickets in 18 months = immobilization. If the owner fails to react in 48 hours, the vehicle may be towed and impounded.
33. A \$20.00 surcharge is added to tickets that go to collections.
34. Three or more unpaid tickets in 18 months = immobilization and/or towing.
35. Meter fines double if not paid in 2 days to \$40.00 and then increase by an additional \$15.00 if not paid within 20 days.
36. Timed parking and alternate side of the street fines increase by \$25.00 if not paid in 2 days to \$55.00 and then increase by an additional \$15.00 if not paid within 20 days.
37. Other parking fines increase by \$25.00 if not paid in 2 days to \$70.00 and then increase by an additional \$5.00 if not paid within 20 days.
38. Handicapped violations increase by \$60.00 if not paid within two days to \$185.00, the rise by another \$40.00 if not paid after 20 days.
39. Three or more unpaid tickets in 18 months = immobilization and/or towing.

Facility Maintenance

There are a number of publications that detail best practices as they apply to parking facility maintenance, the two most notable being the **Parking Facility Maintenance Manual: Fifth Edition** available through the National Parking Association and the **Maintenance Manual for Precast Parking Structures** published by the Precast/Prestressed Concrete Institute. Both of these manuals include extensive checklists for necessary tasks to be performed on a daily, weekly, monthly, and semi-annual basis to preserve the condition of parking lots and garages and extend their lifecycles.

An alternate source for identifying critical tasks needed to assure a public parking facility is in good condition and perceived as safe and inviting can be found in the CPTED (Crime Prevention Through Environmental Design) principles. The principles and practices use building and operational design to create environments which reduce risk of criminal behavior. CPTED advances strategies which promote:

- **Natural Surveillance** – Criminals will naturally seek out areas which are secluded and empty to act within as a way to reduce potential detection and apprehension. Anything that increases visibility, improves sightlines, or introduces more traffic through a facility improves its security.
- **Natural Access Control** – A criminal's first priority is to be able to enter a facility undetected and escape it unhindered if they are detected. Good perimeter control includes limiting the number of access points for a facility for both drivers and pedestrians and forcing all parties to pass through portals which are actively staffed or observed.
- **Natural Territorial Reinforcement** – Criminals will always seek out environments where they can blend in or believe they can pass through without being confronted. Features which assist in identifying intended or authorized users from the general public aid in creating space with efficient security. In facilities open to the public, the use of motion-activated lighting systems in key areas can also make the environment uninviting to criminal activity.
- **Maintenance** – Facilities which are poorly maintained indicate a lack of presence of both management and maintenance personnel and create conditions which are conducive to criminal activity. Burnt-out lights, overgrown landscaping, and broken call boxes all create gaps in the active security systems within a facility. Spalls and excessive cracking in slabs, missing or barely visible paint on floors or curbs, and broken or missing directional signage all contribute to a higher risk for tripping incidents as well as vehicular accidents. Inversely, facilities which are well-maintained are, perceptively and in actuality, more secure.

Lighting is a critical consideration to the appearance and perceived safety of a parking facility. There are five common lighting elements used in most modern parking facilities, each with their own benefits and liabilities. These are:

- ***High Pressure Sodium (HPS)***: HPS lamps offer buyers a long-life cycle (24,000+ hours on average) at a low cost and reasonable energy efficiency. They can operate in a variety of temperatures without any impact on light production. However, the quality of light is quite poor; HPS lamps emit an orange tinted glow which dissipates rapidly outside the lamp's cone of service. Consumers using facilities equipped with HPS will commonly observe that the facility has a lot of 'shadowed' areas and that yellow painted lines and symbols on the slabs can be a challenge to read.
- ***Metal Halide (MH)***: Metal halide lamps have average lifecycle of 10,000 to 20,000 hours and are typically priced higher than HPS lamps. They can operate in a broad range of temperatures within

any performance impacts. Metal halide lamps are less energy efficient than HPS lamps but emit a far superior quality of light than HPS. Lights from metal halide lamps appears bluish-white to the common observer and is general perceived to be 3-4 times brighter than that produced by HPS.

- *Induction*: Induction lamps create light by using an electromagnetic field to excite mercury particles suspended in an inert gas like argon or krypton. Induction light technology is somewhat new to the parking industry and still evolving. The first generation of induction lamps came to the market in the late 1980's and had a shorter lifespan than HPS or metal halide lamps due to the high failure rate of their ballasts. The newer systems have corrected the issue and estimated lifecycle varies from 60,000 to 100,000 hours depending on the type of lamp. Induction lamps can operate under a variety of temperatures, but tend to lose some efficiency and power in colder temperatures. Energy efficiency is superior to metal halide systems and far superior to HPS lamps, but the cost to acquire is typically twice the cost of a metal halide unit. Light quality is reported as very good, approaching that experienced outdoors on a sunny day.
- *LED (Light-Emitting Diode)*: LED lamps offer exceptionally long lifecycles (30,000-50,000 hours) at cost higher than metal halide lamps but lower than induction systems. The inverse of induction lamps, LED units perform well in colder temperatures, but lose power and efficiency in hotter temperatures. LED systems are highly efficient and produce a quality of light comparable to induction systems.
- *Linear Fluorescent (LF)*: LF lamps offer moderately long lifecycles (20,000-32,000 hours) at prices which are competitive with metal halide and LED systems, depending on the manufacturer and bidding environment. LF technology is the most efficient of the five types of lamps and light quality is generally as good or better than LED and induction systems, but LF lamps perform poorly in lower temperatures and, in point of fact, cannot start in temperatures of less than 0° F.

DESMAN identified HP and LF lamps in operation within the Village's surface parking lots and around many on-street parking areas.

The Illuminating Engineering Society (formerly the Illuminating Engineering Society of North America) develops standards for lighting quality for various environments. The Illuminating Engineering Society (IES) measures the quality of lighting from three perspectives. These are:

- *Minimum Horizontal Illuminance (MHI)* - This is the measure of how much light is falling on the surface of a parking area directly below a lamp. Measures are taken by a light meter in lux or foot-candles at multiple locations across an area being surveyed.
- *Minimum Vertical Illuminance (MVI)* – This is the measure of how much light is being cast by a lamp at the edge of its cone of illumination at a distance 1.5 meters above the surface of the facility. Measures are taken by a light meter in lux or foot-candles at multiple locations across an area being surveyed.
- *Uniformity* – This the measure of the contrast between the highest recorded MHI divided by the lowest recorded MHI in a particular surveyed area. The ratio between the two should never exceed the prescribed ratio recommended by IES.

IES uses lux or foot-candle to measure lighting. A lux or foot-candle are a measure of light falling across a defined area. Ten lux is roughly equivalent to one foot-candle. In layman's terms, areas which are lit to between .05 and .3 lux would equate to being outside on a clear night with a full moon overhead. An office building hallway would be operating at roughly 80 lux, whereas the actual offices would be lit to

between 320 and 500 lux. Standing in full daylight, but not in direct sunlight, would equate to 10,000 to 25,000 lux.

MHI and MVI are important measures because they determine how effective the light sources are within the facility (e.g. is there enough light). Uniformity is important because it speaks to the quality of the light as perceived by the average user. A parking facility may have very effective lighting fixtures, but if there are not enough of them, it may still be poorly illuminated. Pooling of light and shadows in a parking facility can cut down on an individual's ability to see clearly at a distance and promote a perception of the facility as shadowed and potentially dangerous.

The smaller the uniformity ratio, the more uniform the light distribution is across the area being surveyed, resulting in an environment where the user can see clearer at a distance and perceive as safer.

IES provides a scale of recommended lighting levels for parking structures depending on whether measures are being taken at night (when the facility's lighting system must provide all illumination) or during the day (when the facility's lighting system may be supplemented by natural daylight) as well as where the measures are taken within the facility. As a general rule, the parking facility's lighting system must provide for an MHI of 10 lux, an MVI of 5 lux, and a uniformity ratio of 10:1 across the bulk of the facility during nighttime operations and an MHI of 20 lux and an MVI of 10 lux in areas where individuals congregate, such as automated pay stations.

DESMAN is not a licensed illumination engineer, but did note that the lighting levels observed within the Village's parking lots as well as along sidewalks connecting these facilities to Main Street and other thoroughfares appeared to be both darker and less uniform than what would be considered adequate by most members of the general public.

Finally, there were a wide variety of best practices recommended among the publications issued by the various insurance and federal agencies. They could be generally grouped into one of three categories: Perimeter Control, Communications, and Surveillance. Best practices applicable to the Village's lots and on-street parking areas under each of these categories included the following:

Perimeter Control

- ✓ Pedestrian pathways to and away from the facility (along the facility's perimeter) should be illuminated to a quality equal to or better than lighting within the facility.
- ✓ Plantings along the perimeter of the facility should be maintained such that they do not obscure exterior lighting, provide a manner to access the upper stories of the garage, and/or do not provide a place for an assailant to hide.
- ✓ Areas within the facility which could be used as hiding spaces or refuge, such as dumpsters or abandoned vehicles, should be removed or secured.

Communications

- ✓ Identifying signage, which assists drivers in remembering where they parked, should be in good condition and prominent throughout the facility.
- ✓ Signage directing drivers to the payment stations and/or sidewalks should be provided throughout the facility and should be visible from most parking spaces within the lot.

- ✓ Identification and pedestrian signs should be internally or externally lit and mounted to be highly visible to the majority of parking spaces within the facility.
- ✓ If call boxes are part of the facility design, they should be located along the most commonly travelled pedestrian pathways within a facility, in areas of refuge, and identified by a universal lighting and/signage system.

Surveillance

- ✓ Wherever possible, schedule parking facility maintenance activities during evening or overnight hours to provide a presence within the facility after dark, when activity levels are lower.
- ✓ If CCTV cameras are included in the facility, post signage indicating CCTV systems are in use within a facility only when all CCTV elements are fully functional. Do not indicate in signage that CCTV systems are staffed in real time unless they are in point of fact staffed by dedicated, full-time monitors⁹.
- ✓ CCTV should not be a substitute for good perimeter control and/or facility design and should be employed first to prevent personal crimes, then property crimes.
- ✓ If CCTV is being used as an active element¹⁰, a trained observer and dispatcher should be monitoring the system whenever the facility is open and operational.
- ✓ If CCTV is being used as a passive element¹¹, recording should be routinely audited at least once every thirty (30) days and retained for a minimum of thirty (30) days after execution of audit. This audit should be completed by the security team to verify no incidents occurred in any of the garages.
- ✓ Security patrols should occur regularly, but at random intervals and along varying routes.

DESMAN reviewed the Village's five public parking lots and made the following observations which should be addressed to improve the condition and appearance of the facilities:

- Isabelle Lot (283 Main St)
 - There was a significant collection of garage and debris around the lot's perimeter. Personnel should be assigned or a janitorial service retained to provide basic cleaning services for the facility at least once per week.
 - The perimeter around the lot contains a significant amount of overgrowth which could provide hiding places for potential criminals and the general impression of neglect. This overgrowth should be pruned back immediately and the facility should be subject to major landscaping efforts twice per year in the spring and early fall to assure the facility's perimeter is clear and well-kept.

⁹ If an owner indicates a system is being monitored in real-time and an incident occurs on the property, the owner may be sued and found guilty of gross negligence in civil court.

¹⁰ Defined as supplementing security in real-time by providing constant monitoring of activity within the facility with the ability to summon personnel to respond if an incident occurs.

¹¹ Defined as supplementing security by providing a record of activity within the facility which may be used for identification and/or prosecution should an incident occur.

- The surface of the lot is pocked and cracked in multiple places, especially around the drain, creating tripping hazards as well as a poor appearance. The facility should be resurfaced as soon as possible, sealed, and restriped. Thereafter, crack sealing and patching should be scheduled at least once per year in the spring after the snow melts. Comprehensive line striping should be performed every other year thereafter and comprehensive resealing and/or resurfacing every four years.

Figure 4: Isabelle Lot Cracking and Cratering (October 2024)



- To maintain the surface once restored, the Village should sweep and power wash the lot twice a year, once in March after the last snowfall and once in late October, to clear away any salt or chemicals which might degrade the surface.
- The lot has lighting elements around its perimeter on utility poles, but no lighting in the middle of the facility and/or around the automated pay station. This creates shadow pools in the middle of the lot after sunset, particularly around the payment station where drivers congregate. DESMAN recommends the Village commission a formal study by a lighting engineer to evaluate the quality of lighting across the facility and recommend how the current system could be supplemented to increase illuminance and uniformity.

▪ Willow Lot (27 Broad St)

- The surface of the lot was cracked in places and the stall striping was faded. The facility should be resealed and restriped in the next 2-3 years. Thereafter, crack sealing and patching should be scheduled at least once per year in the spring after the snow melts. Comprehensive line striping should be performed every other year thereafter and comprehensive resealing and/or resurfacing every four years.
- To maintain the surface once restored, the Village should sweep and power wash the lot twice a year, once in March after the last snowfall and once in late October, to clear away any salt or chemicals which might degrade the surface.
- The lot has lighting elements around its perimeter on utility poles, but no lighting over the curb cuts off Broad and Willow Streets and/or around the automated pay station. This creates potential risks for pedestrians moving through and in or out of the lot. DESMAN recommends the Village commission a formal study by a lighting engineer to evaluate the quality of lighting across the facility and recommend how the current system could be supplemented to increase illuminance and uniformity.

Figure 5: Absence of Lighting Elements over Willow Street Entry/Exit for Willow Lot (October 2024)



▪ Justice Lot (Avenue C)

- The surface of the lot and the stall striping were in fair conditions. The facility should be resealed and restriped in the next 3-4 years. Thereafter, crack sealing and patching should be scheduled at least once per year in the spring after the snow melts. Comprehensive line striping should be performed every other year thereafter and comprehensive resealing and/or resurfacing every four years.
- To maintain the surface once restored, the Village should sweep and power wash the lot twice a year, once in March after the last snowfall and once in late October, to clear away any salt or chemicals which might degrade the surface.
- The lot has three lighting elements around its perimeter fronting Avenue C, including one near the automated pay station, but only one along its southern and eastern perimeter. In both cases, those elements and the light they provided were somewhat obscured by the canopy from adjacent trees. These canopies should be pruned periodically to ensure the elements are producing light at maximum efficiency and, pending a lighting audit, the Village should consider installation of second element near the lot's northeast corner adjacent to the vacant abutting building.

Figure 6: Lighting Elements Occluded by Tree Canopy in Justice Lot (October 2024)



- Main Street Lot (219 Main St)
 - This lot is the newest public parking facility in the Village and should not need to be resealed and restriped for at least four years. Thereafter, crack sealing and patching should be scheduled at least once per year in the spring after the snow melts. Comprehensive line striping should be performed every other year thereafter and comprehensive resealing and/or resurfacing every four years.
 - To maintain the surface and striping, the Village should sweep and power wash the lot twice a year, once in March after the last snowfall and once in late October, to clear away any salt or chemicals which might degrade the surface.
 - The lot has two lighting elements along its eastern perimeter, but none along its eastern side. Pending a lighting audit, the Village might consider installation of additional elements along the eastern side to improve uniformity.

Figure 7: No Lighting Elements Along Eastern Perimeter of Main Street Lot (October 2024)



- Old Village Hall Lot (243 Main St)
 - There was a collection of garage and debris along the fence line adjacent to the Justice Building as well as the retaining wall adjacent to the alleyway. Personnel should be assigned or a janitorial service retained to provide basic cleaning services for the facility at least once per week.

- The trees and planting at either end of the lot near the curb cuts off Avenue C and Avenue D are becoming overgrown which could provide hiding places for potential criminals and the general impression of neglect. In some cases, the overgrowth also blocks sightlines for signage. This overgrowth should be pruned back in the near future and the facility should be subject to major landscaping efforts twice per year in the spring and early fall to assure the facility's perimeter is clear and well-kept.

Figure 8: Overgrowth at Western End of Old Village Hall Lot and Surface Cracking (October 2024)



- The surface of the lot is cracked in places and the stall striping is faded. The facility should be resurfaced in the next 1-2 years, sealed, and restriped. Thereafter, crack sealing and patching should be scheduled at least once per year in the spring after the snow melts. Comprehensive line striping should be performed every other year thereafter and comprehensive resealing and/or resurfacing every four years.
- To maintain the surface, the Village should sweep and power wash the lot twice a year, once in March after the last snowfall and once in late October, to clear away any salt or chemicals which might degrade the surface.
- The lot has lighting elements around its northern perimeter on utility poles, but no lighting along the southern perimeter and/or around the automated pay station. This creates shadow pools along the side of the lot abutting the alley after sunset. DESMAN recommends the Village commission a formal study by a lighting engineer to evaluate the

quality of lighting across the facility and recommend how the current system could be supplemented to increase illuminance and uniformity.

- DESMAN also noted that the sidewalks along Avenue D between the lot and Main Street appeared to have substandard lighting, garbage cans and other obstructions in the sidewalks, and a number of abandoned store fronts. The combination of these elements creates a perception of an unsafe area for pedestrians traversing between the lot and Main Street at any time, especially after dark. DESMAN would recommend the lighting audit in the lot be extended to include the length of Avenue D, that the Village work with property owners to keep the sidewalks clear, and that the Village consider commissioning murals or other projects similar to those along Avenue C to improve the appearance of the vacant storefronts.

Figure 9: Avenue D between Main Street and Western End of Old Village Hall Lot (October 2024)

