Appendix B Parking Demand Analysis

NELSON
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MEMORANDUM

To: Town of Windsor

From: Nelson\Nygaard Team

Date: October 8, 2019

Subject: Technical Memo 3: Existing and Future Conditions, with Shared Parking Model – Final Revision

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INTRODUCTION

Parking is not independent, but rather is intricately intertwined with the overall mix of land uses and activities it serves. As Downtown Windsor evolves and attracts a variety of development, this relationship is critical. This memo explores the current relationship between existing land use and parking, and models expected land use and parking given known and potential development.

Downtown Windsor does not represent typical suburban development. The interesting and diverse mix of land uses, planned SMART commuter rail station, walkable environment, active small-scale retail, and growing local dining scene helps enhance Downtown Windsor's local feel. When land is at a premium in this center of activity, careful consideration of what the land is

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dedicated to (built environment, roadways, open space, parking) has a significant impact on the vitality of downtown.

This memo describes the model used to understand the ratio of land use and parking supply and demand in three sub-areas of activity in downtown. The model determines how much parking would be needed based on how much parking can be shared between land uses and people (customers, employees, visitors) visiting multiple destinations (depending on the scenario and timeframe). The combined results of these analyses are then compared to the actual observed parking demand. Each activity area also includes a short-term buildout scenario (expected, known developments) and a potential full-buildout scenario, which shows the long-term maximum growth for identified parcels.

This parking demand analysis includes parking ratios applicable to the Town of Windsor code, the typical "unshared" demand rates when applying the Institute of Transportation Engineers (ITE) Parking Generation Manual (5th Edition), and "shared" demand rates when taking ITE rates and adjusting each land use's parking demand by time of day per methodologies published by the Urban Land Institute (ULI).

Key points and findings from this memo will be incorporated into the report associated with studying the overall parking supply, demand, and management of Downtown Windsor.

ABOUT SHARED PARKING

Understanding Shared Parking

Land uses -- and the activity at those land uses -- drive both parking demand and policy. The relationship between the two is codified into parking requirements that require specific amounts of parking depending on the size of a given land use, regardless of context. The conventional way to analyze how much parking is needed is to consider the peak demand at each land use in isolation and require each land use to provide the resulting number of spaces. Often parking requirements can result in an oversupply of parking except for a few peak days per year.

In mixed-use developments or developments with shared parking, the conventional method of calculating parking demand can also result in an oversupply of parking spaces for reasons that are explained in this section.

Although there are many different types of potential shared parking arrangements (opportunities typically occur between a public and private entity or multiple private entities), the essence of shared parking is **that it permits the provision of less than the minimum parking normally required if two or more uses have peak demand at different times of day or day of week**.

Traditional parking requirements maintain that individual land uses should have dedicated parking supplies, as shown at top of Figure 1. The Institute of Transportation Engineers (ITE) publishes a set of nationally recognized "parking ratios" in *Parking Generation,* which is currently in its 5th edition. It is important to note that the ITE ratios represent peak-period levels of demand and are derived from case-study observations that focus largely on suburban land use patterns, without specific context. In these locations, there is little practical demand for shared parking as land uses tend to be physically separated.

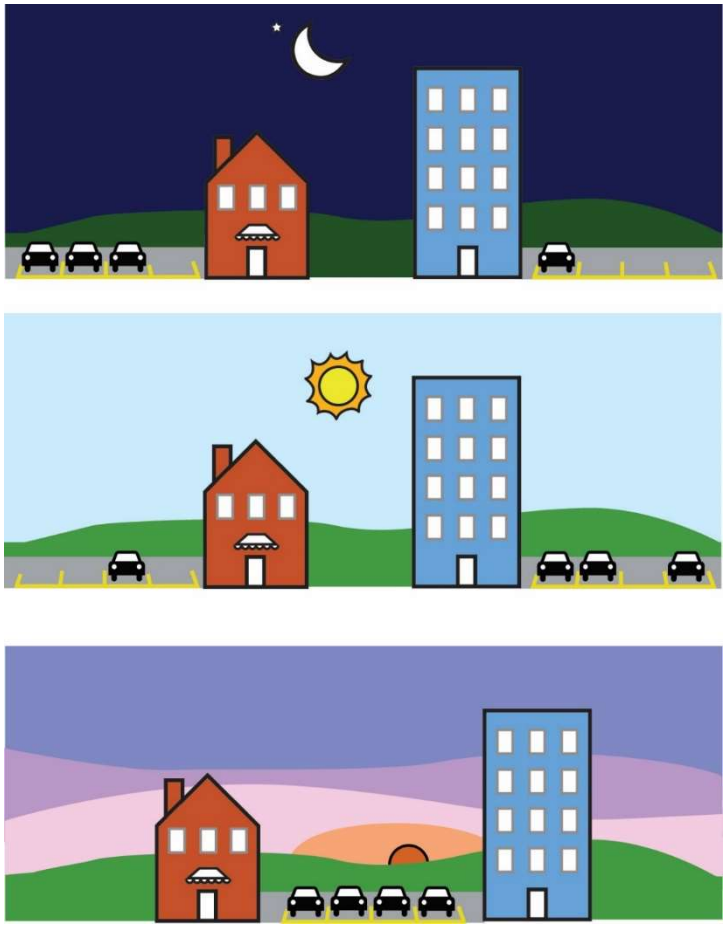
Real parking demand is rarely constant; it changes over time, as demonstrated in the middle segment of Figure 1. For example, while typical office parking demand is low during the night and

peaks through the middle hours of the day, typical residential parking demand peaks outside of traditional working hours.

The key element of shared parking arrangements is a recognition that there are different peak parking demand hours for different land uses—even in the same or adjacent developments. When considering how residential and office uses have different peaks, one could reduce the total number of spaces required by the both uses and effectively still accommodate both use's parking demands across the entire day (see the bottom of Figure 1). For example, residential demand makes up a majority of net new parking demand from approved developments in Downtown Windsor. Therefore, a challenge will be to accommodate not just spillover commercial parking demand in residential areas during midday periods but also the potential for spillover residential demand on-street during evenings after businesses have closed. An additional challenge may be when residential demand is high during weekend mornings and middays, the same time that people may be coming to a neighborhood to go shopping.

Formalizing a shared parking program makes more of the **total supply which is publicly available to visitors** who choose to drive, making it more likely they'll get a space; it has little effect on the overall magnitude of demand. Instead, shared parking improves the efficiency of the parking system by regularizing demand, ensuring a consistent utilization of spaces, rather than short periods of peak usage followed by long periods of vacancy.

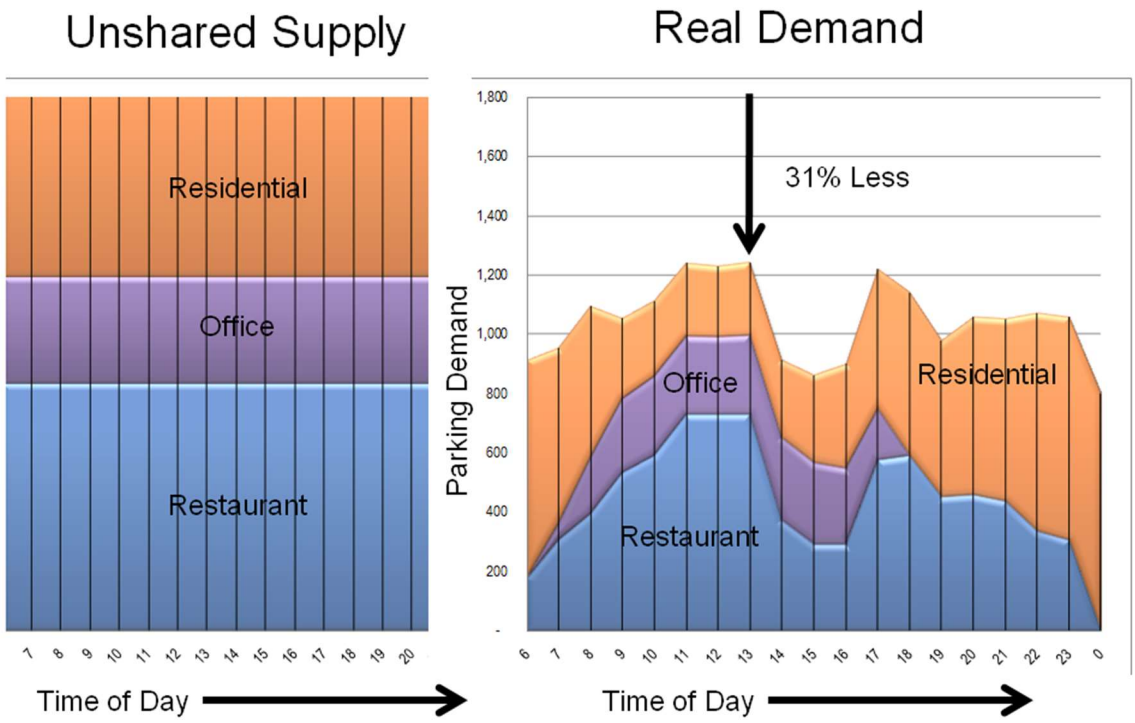
Figure 1 Example of Unshared Parking at Night (top), Day (middle), and Shared Parking All Day (bottom)



Shared parking, like traditional single-use parking minimums, also relies on established methodologies that have been employed by cities and towns of all sizes and types. This analysis uses Urban Land Institute's (ULI) *Shared Parking* methodology to model parking demand.

If there is an opportunity to share parking supply between various uses in a walkable mixed-use environment, there can be a justified reduction in the total number of spaces normally required by the same land-uses in stand-alone developments. This difference between existing stand-alone demand and real demand (in which reductions are made depending on the time of day and land use) is demonstrated in the hypothetical example shown on Figure 2.

Figure 2 Example Parking Requirements vs. Real Demand



NOTE: This example is a hypothetical, and does not use data pertaining to Downtown Windsor.

It should be noted that while the Downtown Windsor study area is a mixed-use environment, many of the private parking facilities are not publicly available to all downtown visitors. As such, **in all projections, the reality of parking demand lies somewhere in between the unshared parking requirements and the modeled "shared" demand.**

The Shared Parking Model

To model a park-once environment, Nelson\Nygaard used an adapted shared parking model using inputs from the Urban Land Institute's (ULI) Shared Parking Manual (2nd Edition, 2005) and ITE's Parking Generation (5th Edition, 2019). Besides demand by time of day, we tailored the shared parking model for Downtown Windsor to include a parking demand reduction for internal capture. Mixed-use downtowns allow for parking efficiencies through "internal capture" or "captive market" trips. Such trips are made by patrons who, having already parked, travel between uses without accessing their vehicle. Restaurants and retail services are common generators of internal capture trips in mixed-use developments, as they serve both employees and

residents within the same area. The shared parking model includes a conservative percent reduction to account for the mix of Downtown Windsor development patterns.

This land use and demand analysis relied on property use and tax roll data from the County of Sonoma Assessor's Office to determine a primary use and amount of building space for each of the study area's parcels. The project team calculated an overall amount of land use intensity (e.g. residential units, square footage of non-residential uses, etc.) for each major use category.

Where known, information for approved and proposed development projects was incorporated from site plans.

It is important to note that the property records provided do not use a consistent method for capturing multiple land uses on one given parcel, a common feature of downtowns in general and major parts of the Downtown Windsor study area. The records generally defined a separate category and square footage for each principal use in a building or on a single property, allowing the project team to aggregate use categories by district and use the combined totals for each major land use as the basis for estimating parking demand.

However, some other records assigned multiple uses into a single category, while others generally used a miscellaneous category for these kinds of properties or even for properties featuring single uses. The project team reviewed this data and reassigned the amounts of building space into appropriate categories based on local knowledge.

The project team applied these land use program amounts to two separate calculation methodologies. The first of these, based on traditional zoning requirements, calculated demand for all individual uses in each district per estimated peak levels of activity and demand; this assumed that parking is not shared between uses and is provided for each individual use as needed. The second methodology, based on the ULI Shared Parking research and analysis, calculates demand and activity with the recognition that that different peak periods for individual land uses occur at different times of the day and allow a common supply of spaces to be shared over an entire area.

As a result, there are **high and low extents of both the modelled supply and modelled demand spectrums**. The highest modelled supply assumes a scenario in which the maximum number of spaces are available to the general public – essentially permitting a visitor to "park once" within Downtown Windsor and park. The lowest modelled supply assumes the minimum number of spaces are available to the public and that spaces assigned to certain land uses are only allowed to patrons, tenants, and employees of each individual land use. On the demand side, the lowest modeled demand assumes that, by virtue of proximity to one another, land uses will share parking demand, and that trips will be reduced due to "internal capture". The highest modelled demand assumes that each land use will generate the same demand for parking as if the site were located in a vacuum and that each person who is parking will be driving and parking to each and every place they visit.

What this iteration of the model does not account for, however, is the presence of any transportation demand management (TDM) program employed by any land use or site within Downtown Windsor. TDM programs (e.g., subsidized transit passes, carpool/vanpool matching, and car share memberships) encourage and incentivize the access to sites by means other than a single-occupancy vehicle, which in turn, reduces the demand for parking. Additionally, because just 2% of Windsor residents do not have a vehicle in their household, parking demand was not reduced directly in the model due to due to alternative transportation modes. Therefore, if TDM

programs are factored in (and implemented to affect a greater use of alternative transportation modes), there may be an even lower possible extent of modelled parking demand in the future.

PARKING INVENTORY BY STUDY AREA AND SUBAREAS

Through close correspondence with the Town staff, the project team defined a study area to include all critical parking assets and encompass any perceived parking issues in Downtown. The perimeter of the study area fits a loose understanding of Downtown Windsor and is fully contained between the future Sonoma Marin Area Rail Transit (SMART) corridor and U.S. Highway 101. Three sub-areas within a Total Study Area were demarcated around locations of particular interest and demand generated by major destinations and events in the western, eastern and northern areas of Downtown Windsor.

The demarcation between the three sub-areas is shown in Figure 3. Zone 1 is centered around the southwestern corner of Downtown Windsor and the future SMART station. Zone 2 covers all downtown locations to the east side of Market Street. Zone 3 is focused on the north-central area of Downtown, including many of the Town's civic buildings and facilities. **The Total Study Area is *inclusive* of Zones 1, 2, and 3;** Separate parking demand analyses are conducted for the Total Study Area and Zones 1, 2, and 3.

It is important to note that, unlike observed inventory and utilization figures, any modelled demand figure – future or existing – will have a cumulative effect. In other words, each modelled output for individual zones may not add up to the modelled output for the entire study area (i.e. the demand for the total study area does not respect inner boundaries, while the demand for the sub-areas is constrained by them leading to some differences).

Figure 3 Windsor Parking Inventory



Sources: Town of Windsor, Wiltec, ESRI

Figure 4 provides inventory details for Downtown's total parking supply, while Figure 5 through Figure 7 focuses on the three sub-areas of the study.

Figure 4 Summary of Parking Inventory in Total Study Area

Space Type	Publicly-Available	Restricted to Customers, Tenants and Employees	Total Spaces in Study Area
On-Street	609	39	648
Off-Street	211	1,090	1,301
Total	**820**	**1,129**	**1,949**

Figure 5 Summary of Parking Inventory in Zone 1

Space Type	Publicly-Available	Restricted to Customers, Tenants and Employees	Total Spaces in Zone 1
On-Street	238	39	277
Off-Street	164	113	277
Total	**402**	**152**	**554**

Figure 6 Summary of Parking Inventory in Zone 2

Space Type	Publicly-Available	Restricted to Customers, Tenants and Employees	Total Spaces in Zone 2
On-Street	259	0	259
Off-Street	0	835	835
Total	**259**	**835**	**1,094**

Figure 7 Summary of Parking Inventory in Zone 3

Space Type	Publicly-Available	Restricted to Customers, Tenants and Employees	Total Spaces in Zone 3
On-Street	112	0	112
Off-Street	168	21	189
Total	**280**	**21**	**301**

EXISTING LAND USES AND PARKING DEMAND

Existing land uses within the Total Study Area, sorted by the land use categories evaluated under the shared parking model, are shown in Figure 9 below. Similar land use totals for the smaller sub-areas (Zones 1, 2, and 3) are shown in the subsequent section.

Existing Parking Demand Model Methodology

For the Total Study Area, and each of the three zones, existing parking demand is first presented in the form of three charts: Existing ITE Unshared Demand, Existing Shared Demand, and Existing shared Demand with Observed Demand. These are defined in Figure 8.

Figure 8 Overview of Existing Model Chart Names

Chart Name	Definition
Existing ITE Unshared Demand	The full sum of each land use's parking demand if calculated as a single disconnected land use (as per ITE standards) and were thus "unshared."
Existing Shared Demand	The demand for parking needed after factoring in time of day demands and internal capture calculations. Windsor's existing land uses and mixed-use environment factor into the calculation.
Existing Shared Demand with Observed Demand	Existing Shared Demand with but Observed Demand superimposed – by time of day – onto the chart.

In modelling existing parking demand, parking supply is presented as the total number of parking spaces, regardless of whether they are restricted or not.

Total Study Area

Land Use (Total Study Area)

Overall, there are about 400 dwelling units and 378,000 square feet of non-residential space in the Total Study Area. Land uses are grouped as accurately as possible into land use categories created by the ITE's *Parking Generation, 5th Edition* (2019). The purpose of profiling land uses existing in the Downtown Windsor Study area (Figure 9) is to disclose the inputs for existing conditions in the parking model, which uses ITE Parking Ratios, as opposed to parking requirements set by the Town.

Figure 9 Land Use Intensity by Category – Total Study Area

Land Use	Amount	Units	ITE Parking Ratio (5th Ed) for Comparison – spaces per unit, or per 1,000 square feet
Industrial[1]			
General Light Industrial	42,500	square feet	0.75
Manufacturing	44,341	square feet	1.02
Recreational			
Recreation or Community Center	12,671	square feet	3.2
Retail			
Shopping Center	84,496	square feet	2.55
Suburban Supermarket/Public Market	48,235	square feet	3.78
Service			
Quality Restaurant	18,221	square feet	10.6
High Turnover Restaurant (Suburban)	8,443	square feet	10.6

[1] Staubli is classified General Light Industrial. The Windsor Fuel facility at 9600 Windsor Road is classified as Manufacturing.

Fast Food Restaurant (w Drive-thru)	4,351	square feet	9.98
Bakery/Café (w/out Drive-thru)	2,582	square feet	12.77
Auto Service	2,561	square feet	4.17
Institutional			
Library (Suburban)	7,572	square feet	2.22
Office			
Office (Suburban)	54,949	square feet	2.84
Government Office	47,240	square feet	3.2
Residential/Lodging			
Low to Mid Rise Apartment (Suburban)	175	units	1.23
Rental Townhouse	52	units	1.62
Residential Condo/Townhouse	174	units	1.38

Source: County of Sonoma Assessor's Office

Existing Parking Supply and Demand (Total Study Area)

In the Total Study Area, there are 1,949 spaces. At peak on a weekday (12 PM), 53% of the parking supply is utilized, as shown in Figure 10. Off-street and on-street parking facilities show similar levels of utilization on weekdays, with 54% and 50% utilization, respectively (see Figure 11 and Figure 12).

On weekends, parking utilization significantly increases, to 59% overall (see Figure 13). On-street parking is particularly well-utilized, with 70% utilization (see Figure 15), while off-street parking facilities typically see lower utilization of 53% (see Figure 14).

Figure 10 Total Study Area Parking Utilization – Weekday

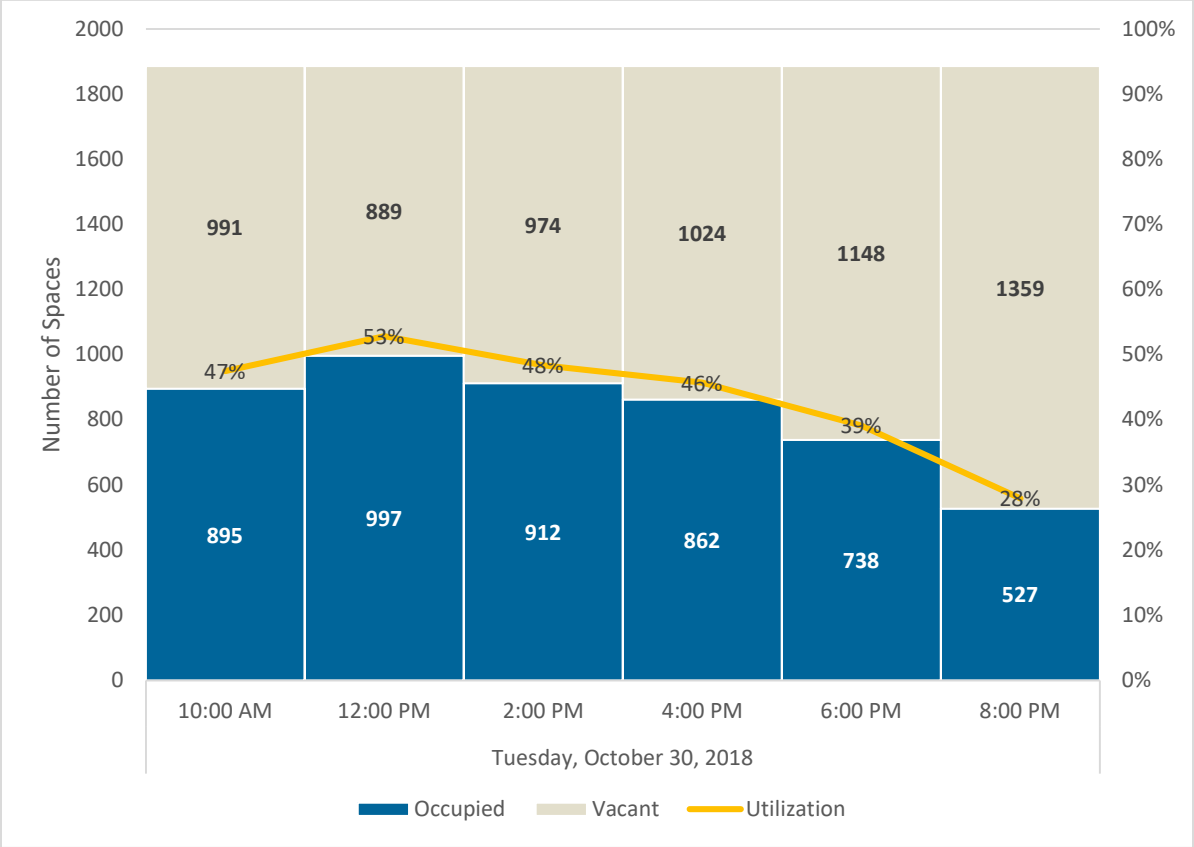


Figure 11 **Off-Street Parking Utilization – Total Study Area – Weekday**

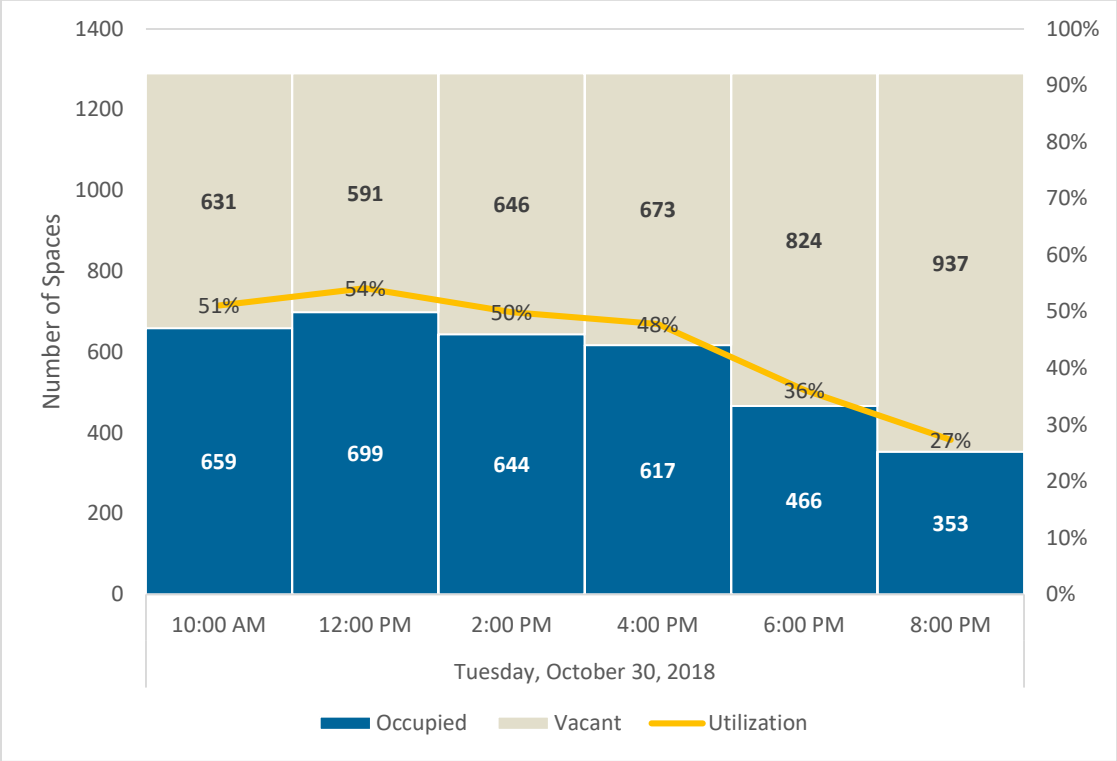


Figure 12 On-Street Parking Utilization – Total Study Area – Weekday

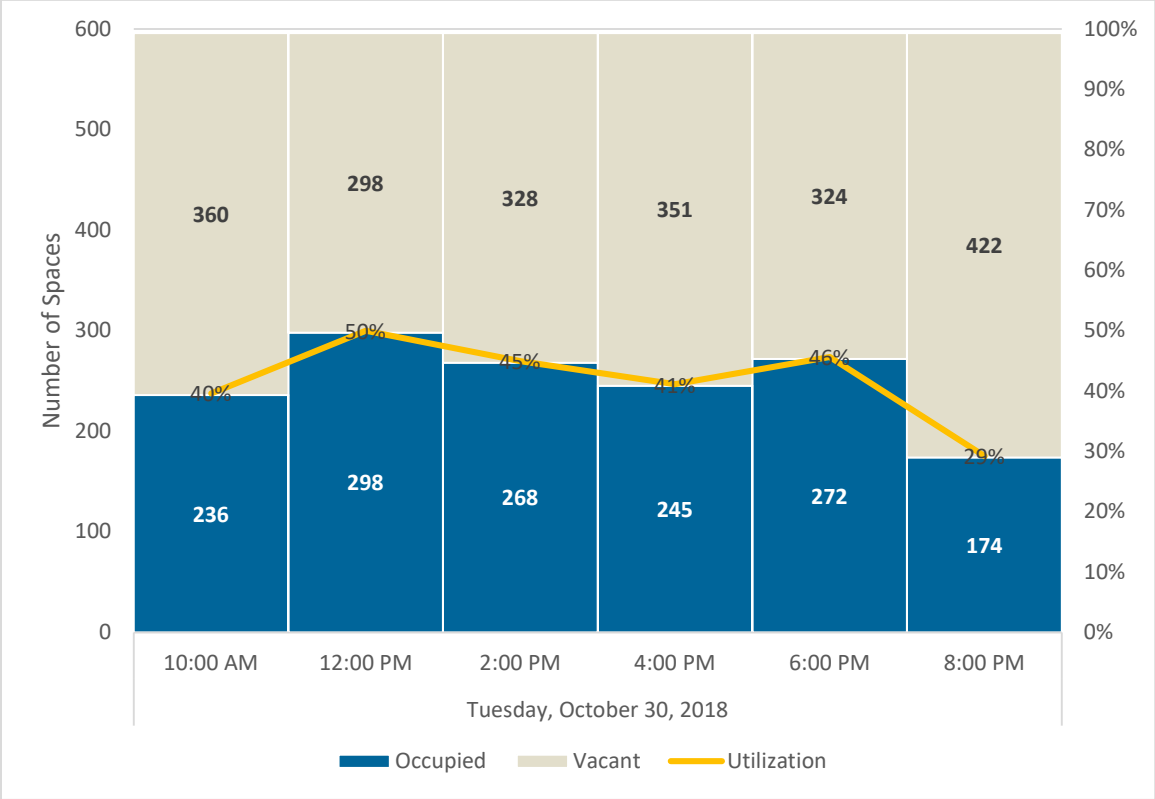


Figure 13 Total Study Area Parking Utilization – Weekend

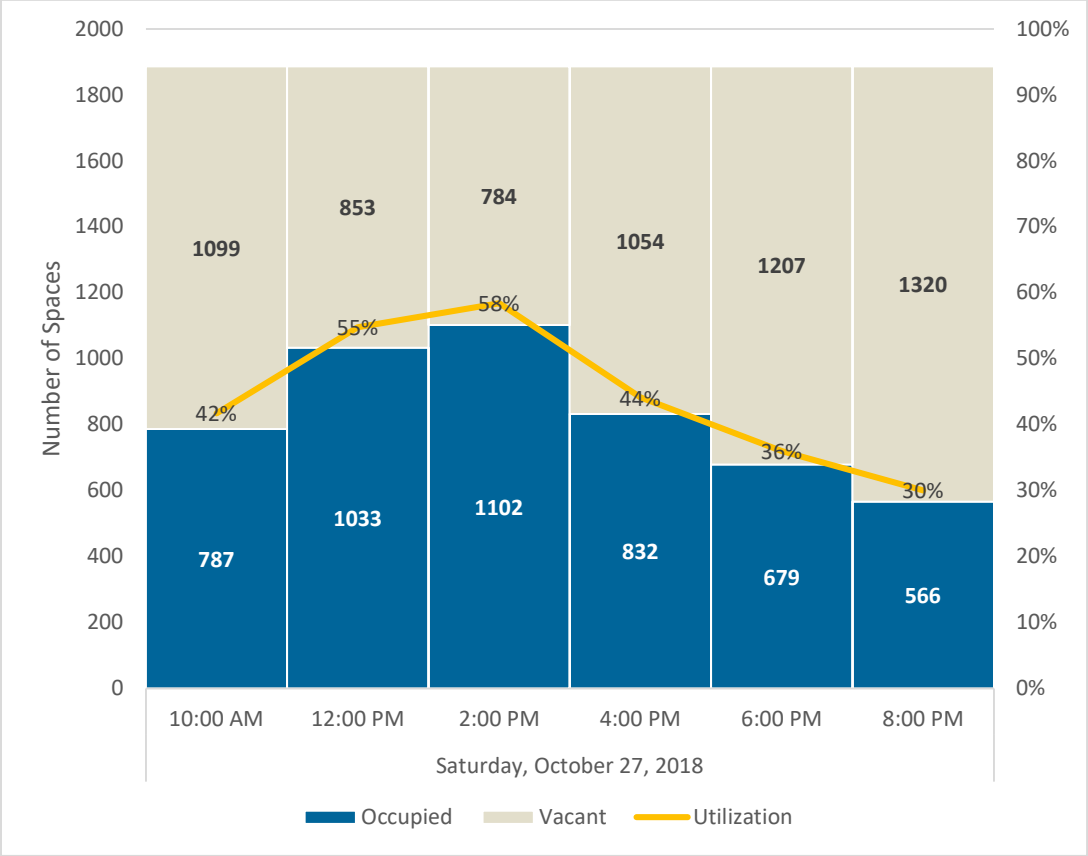


Figure 14 Off-Street Parking Utilization – Total Study Area – Weekend

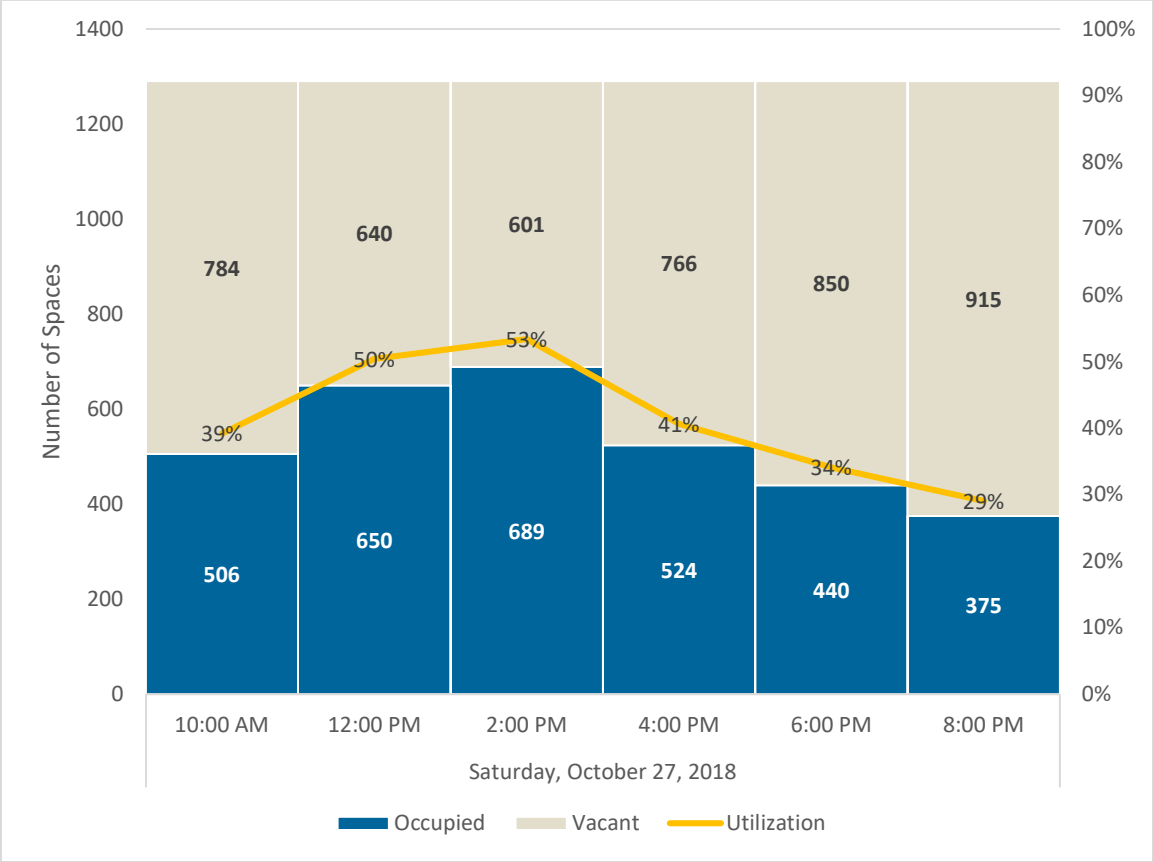
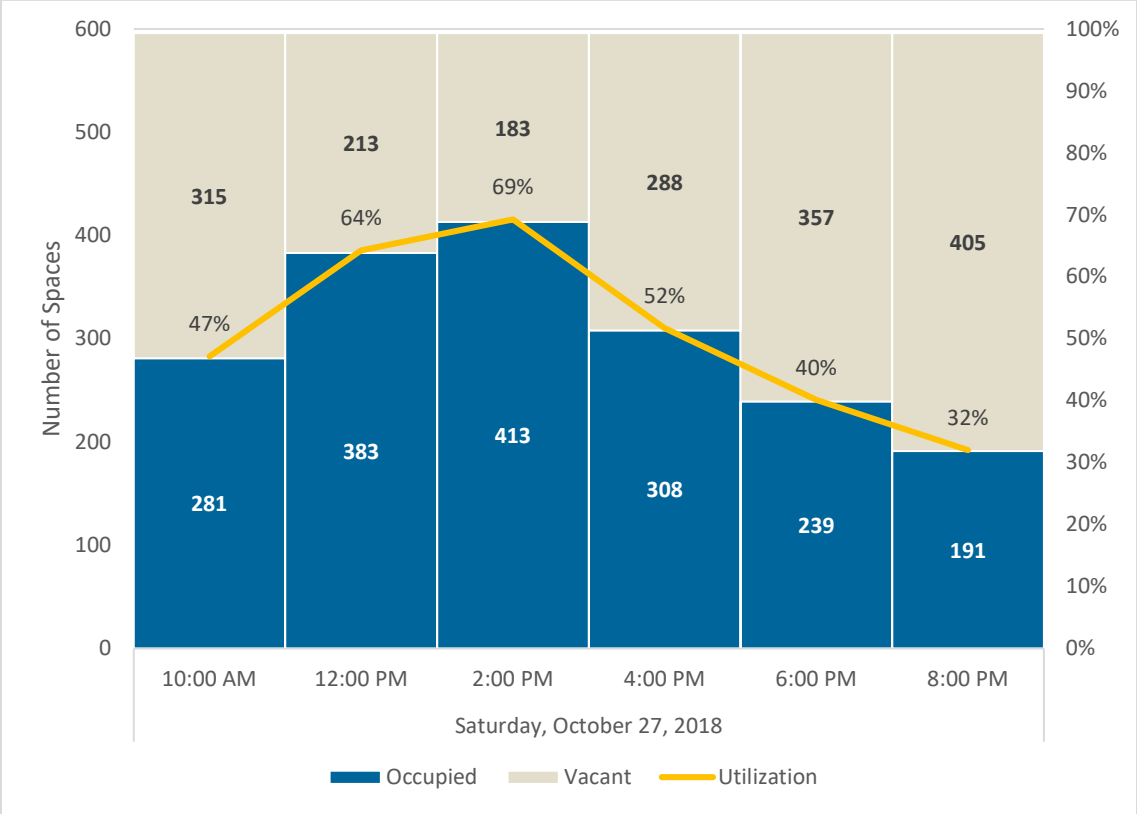


Figure 15 On-Street Parking Utilization – Total Study Area – Weekend



Special Event Parking Demand (Total Study Area)

During special events, such as the Summer Nights on the Green concert series held on the Town Green, parking utilization increases significantly above the weekday baseline, going from 37% to 75% overall (see Figure 16). On-street parking becomes functionally full during special events, with utilization of about 98%. Off-street parking is also heavily utilized, with 62% utilization. These high rates of utilization result in overflow parking demand that frequently spills over onto neighboring residential streets outside of the Total Study Area.

Figure 16 Baseline and Special Event Parking Utilization – Total Study Area

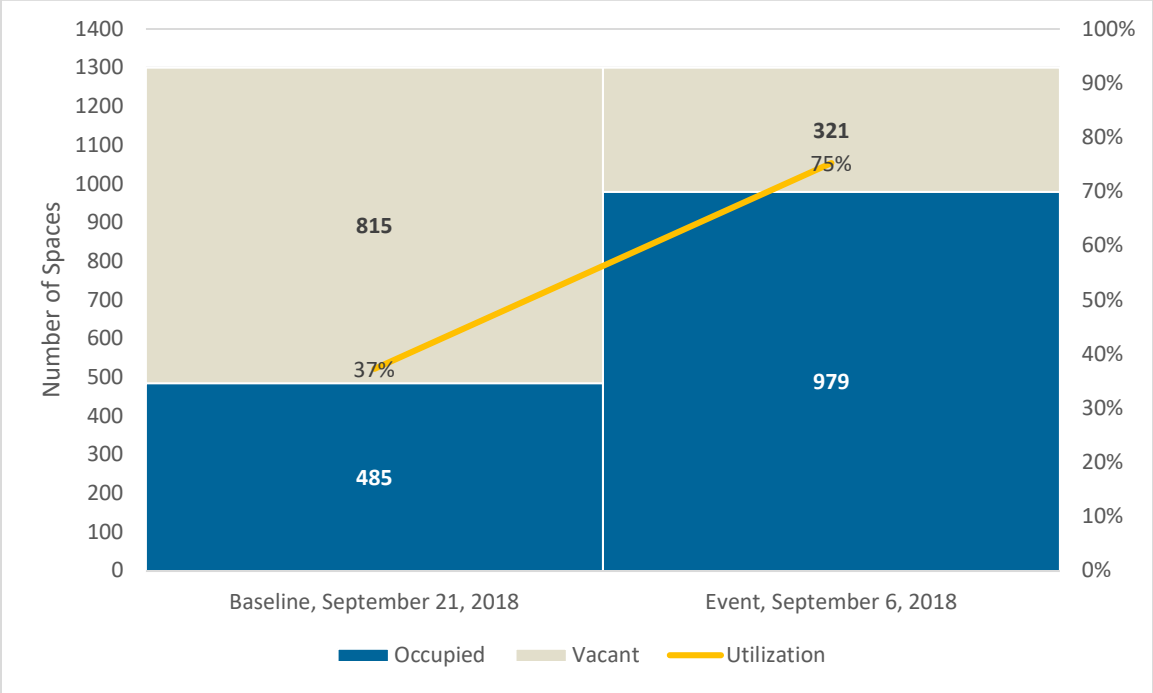


Figure 17 Baseline and Special Event Off-Street Parking Utilization – Total Study Area

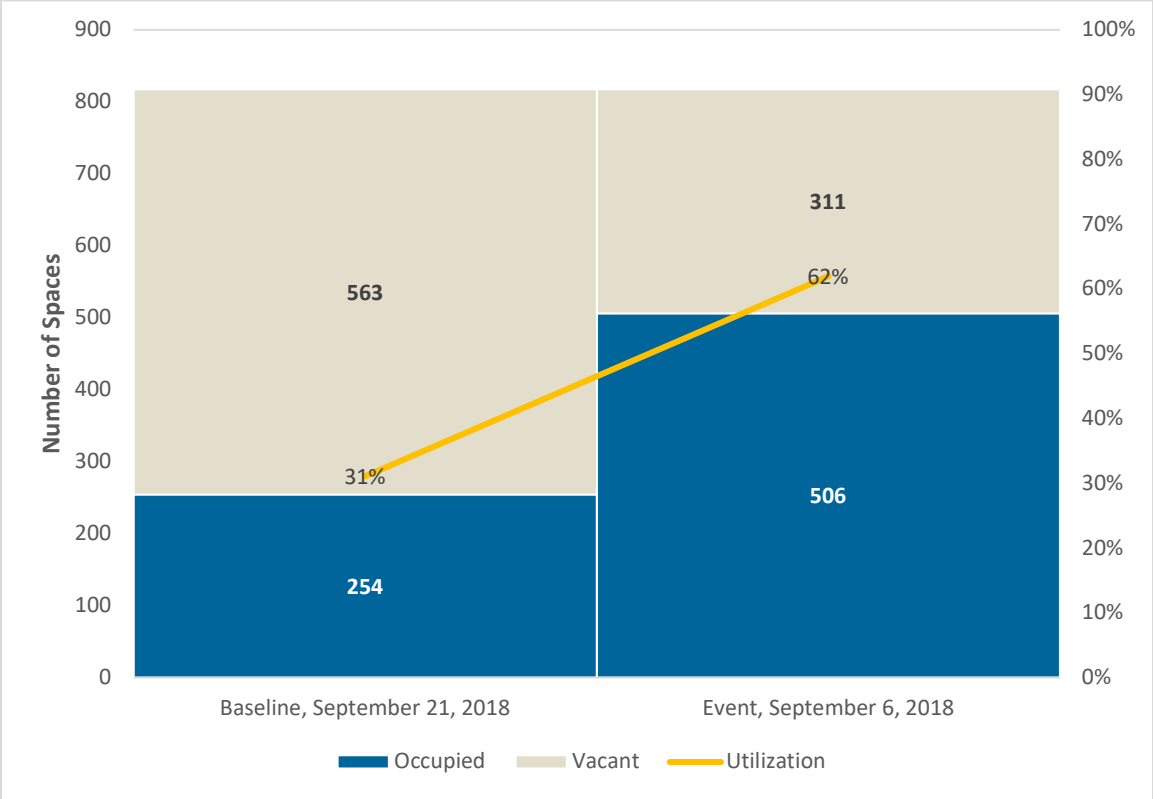
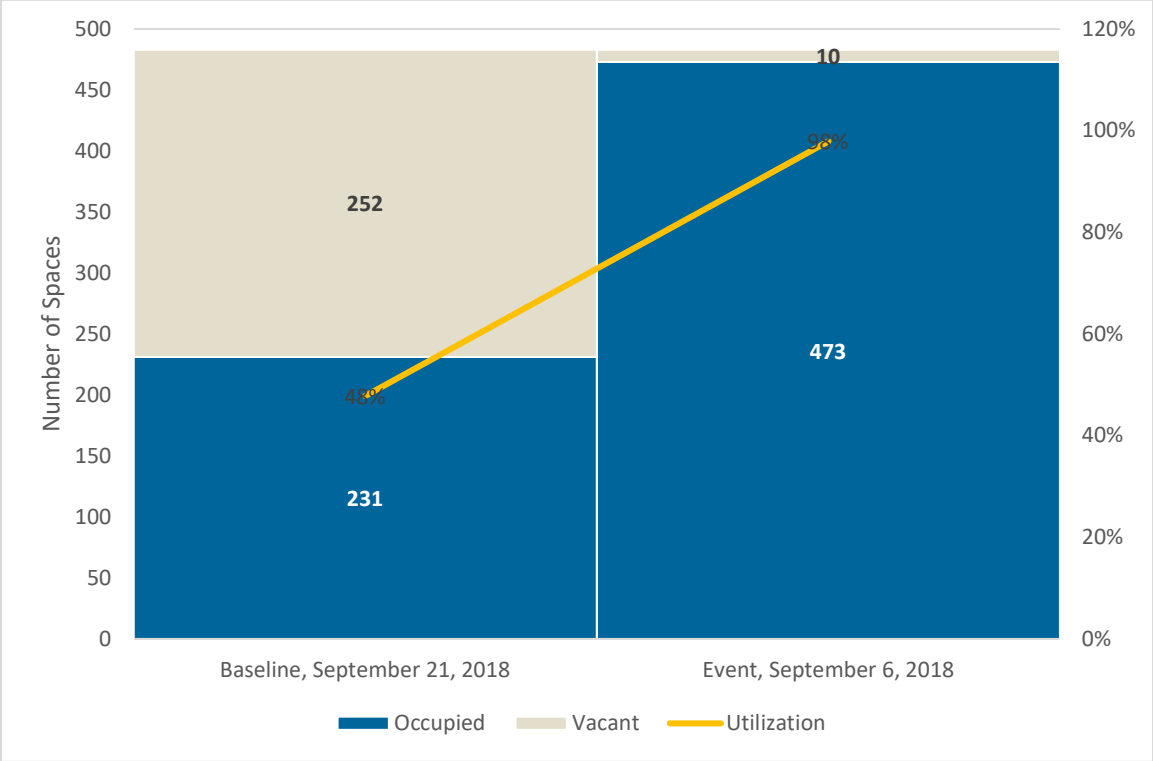


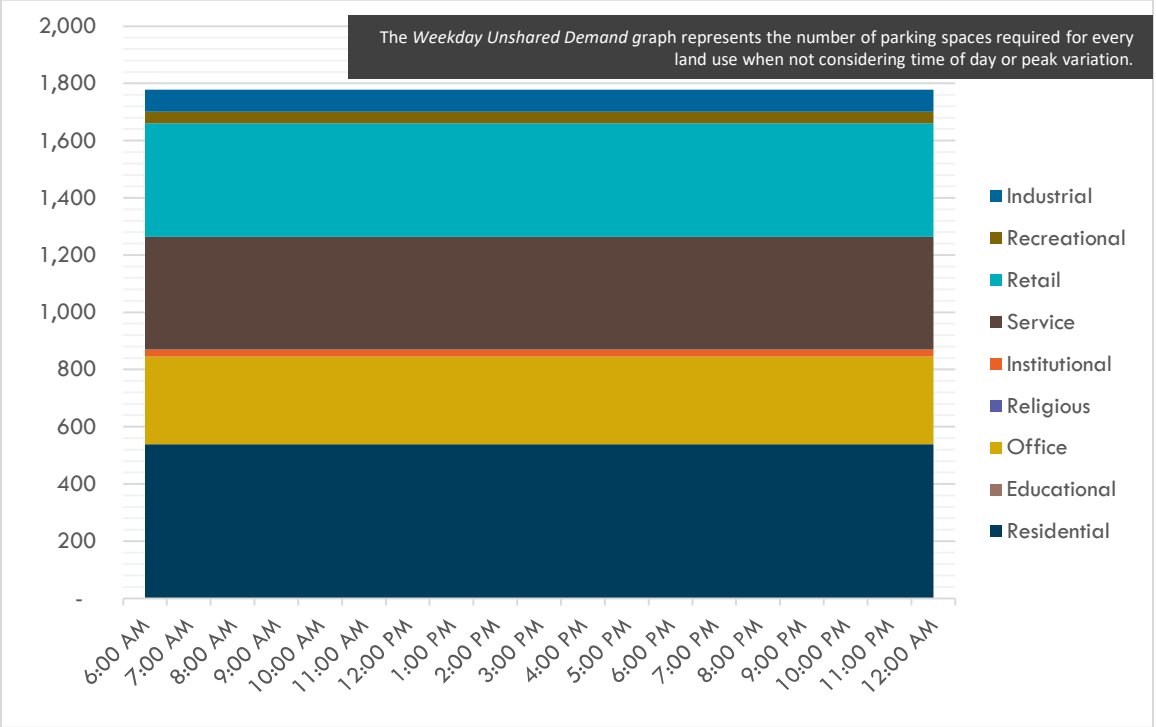
Figure 18 Baseline and Special Event On-Street Parking Utilization – Total Study Area



Existing Shared Parking Analysis (Total Study Area)

According to national parking standard calculations from ITE, the needed number of unshared parking spaces for the Total Study Area is 1,957 spaces, equipped to handle a peak parking demand of 1,779 spaces (see Figure 19). The Total Study Area has a total of 1,949 spaces. This confirms that Windsor has built a comparable parking supply to national standards for single-use suburban development, within about 10 spaces.

Figure 19 Existing ITE Unshared Demand – Total Study Area, Weekday



The shared parking model shows the number of parking spaces needed after factoring in time of day demands by land use and Windsor's mixed-use environment. The estimates show that the peak demand is at 12 PM with 785 spaces (see Figure 20).

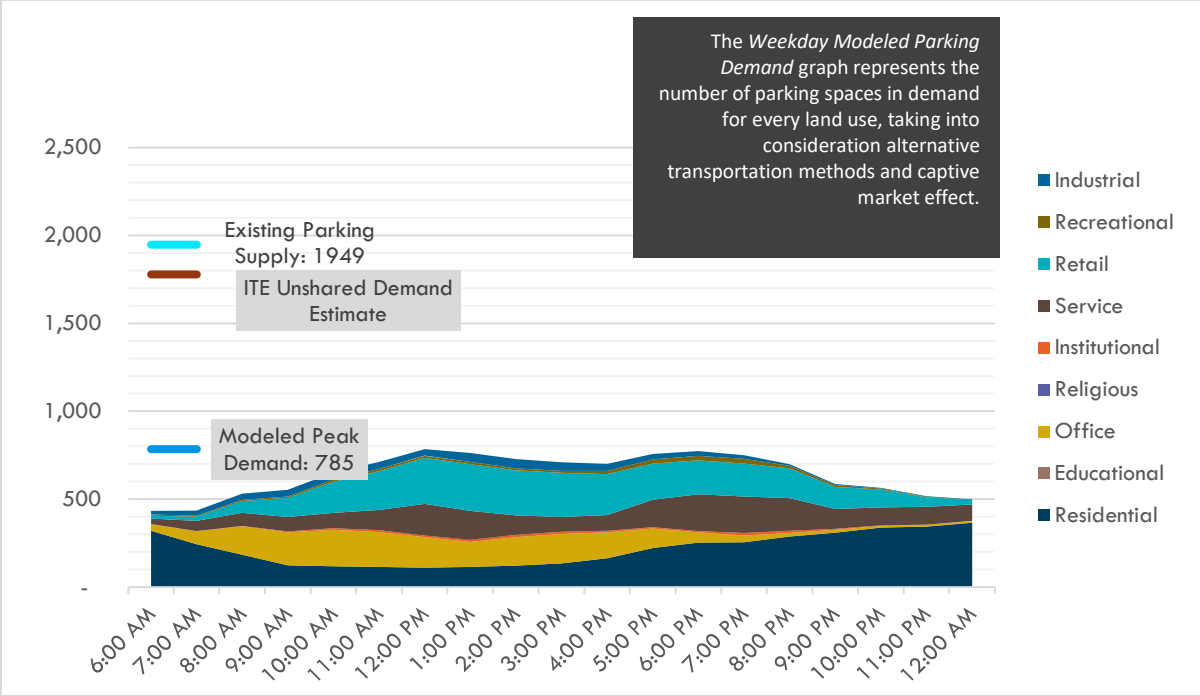
Using the same parking utilization counts shown in Figure 21, when overlaid on the observed parking demand based on land use, the patterns are quite similar. Thus, there is adequate supply to meet demand, both estimating by land use and when counting today's parking demand. This comparison also confirms that the shared parking model is well-calibrated with respect to existing of parking demand conditions. Two key assumptions accompanying the shared parking model include the "captive market" effect and the effect of alternative (non-drive-alone) modes of transportation.

The captive market effect, also known as "internal capture," is an estimate of the proportion of vehicular trips between complimentary land use pairs that will be satisfied internally, on foot, within Downtown Windsor. A significant share of trips between residential and retail, or office and restaurant uses, for example, can be completed on foot and require just one, rather than two parking spaces between the land use pair. National parking demand surveys have shown that a typical, suburban, mixed-use development or downtown district features average captive market

rates of 32 percent.[2] In other words, about one in three trips that occur between these types of complementary land uses require just one parking space, rather than two at their destination because they are generated by residents, workers, or visitors/patrons who live, work, and/or park elsewhere within the zone.

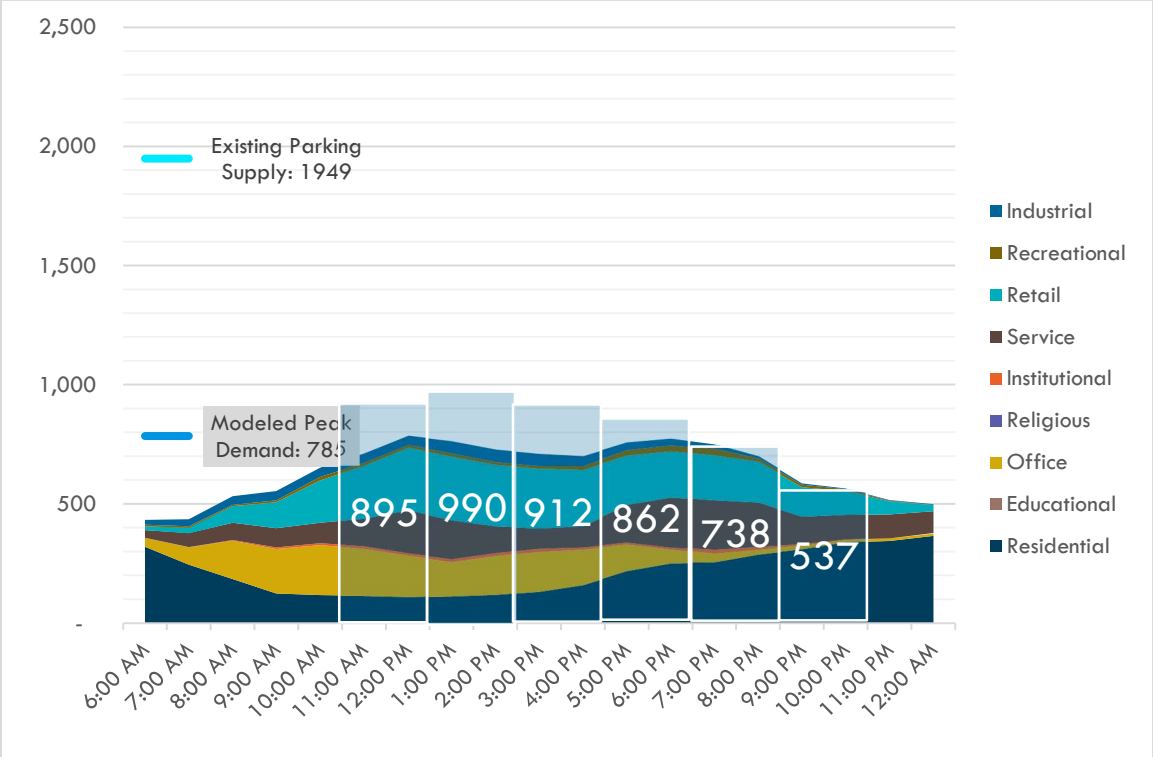
Windsor does not currently have access to high-frequency transit service, and most residents, workers, and visitors/patrons are likely to access Downtown by driving (92%, according to Census estimates described in the previous section). As a result, the effect of alternative modes of transportation in the shared parking model is set to zero. This percentage will increase in Future Scenario B.

Figure 20 Existing Shared Demand – Total Study Area, Weekday



[2] *Trip Generation Handbook, 2nd Edition. ITE pg. 129 - Districtwide Trip Generation Study, Florida Department of Transportation, District IV, March 1995.*

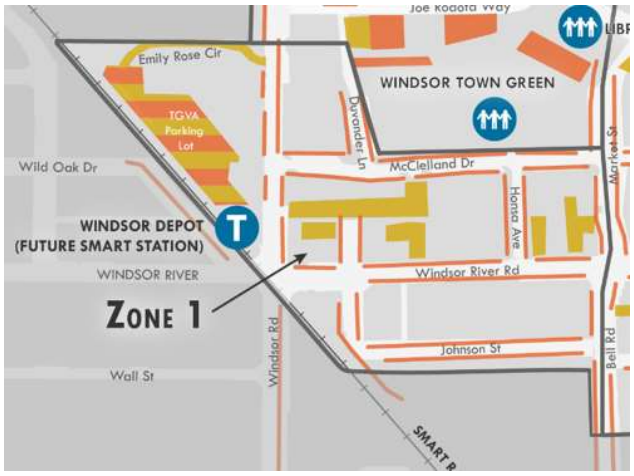
Figure 21 Existing Shared Demand with Observed Demand – Total Study Area, Weekday



Zone 1

Land Use (Zone 1)

Figure 22 Zone 1 Detail



Overall, there are 116 dwelling units and about 82,000 square feet of non-residential space in Zone 1. Land uses are grouped as accurately as possible into land use categories created by the ITE's *Parking Generation, 5th Edition* (2019), as shown in Figure 23.

Figure 23 Land Use Intensity by Category – Zone 1

Land Use	Amount	Units	ITE Parking Ratio (5th Ed) for Comparison
Recreational			
Recreation or Community Center	2,376	square feet	3.20
Retail			
Shopping Center	31,213	square feet	2.55
Suburban Supermarket/Public Market	12,476	square feet	3.78
Service			
Quality Restaurant	16,368	square feet	10.6
Auto Service	1,161	Square feet	4.17
Office			
Office (Suburban)	18,878	square feet	2.84
Residential/Lodging			
Rental Townhouse	12	units	1.62
Residential Condo/Townhouse	104	units	1.38

Source: County of Sonoma Assessor's Office

Existing Parking Supply and Demand (Zone 1)

In Zone 1, there are 554 spaces. At peak on a weekday (6 PM), 56% of the parking supply is utilized, as shown in Figure 24. Off-street and on-street parking facility utilization at that same peak time are 47% and 66, respectively (see Figure 25 and Figure 26).

On weekends, parking utilization in Zone 1 is near optimal levels, peaking at 2 PM at 71% overall (see Figure 27). Weekend on-street parking is somewhat constrained, with 85% utilization (see Figure 29), while off-street parking facilities typically see lower utilization, peaking at 58% (see Figure 28).

Figure 24 Zone 1 Parking Utilization – Weekday

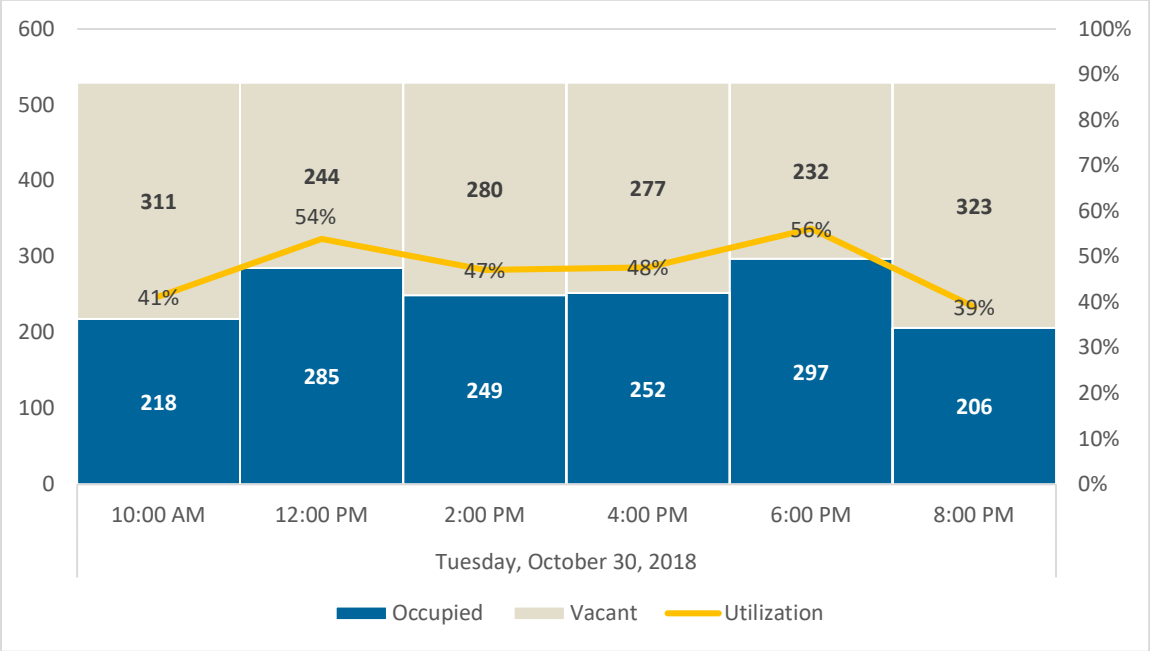


Figure 25 Off-Street Parking Utilization – Zone 1 – Weekday

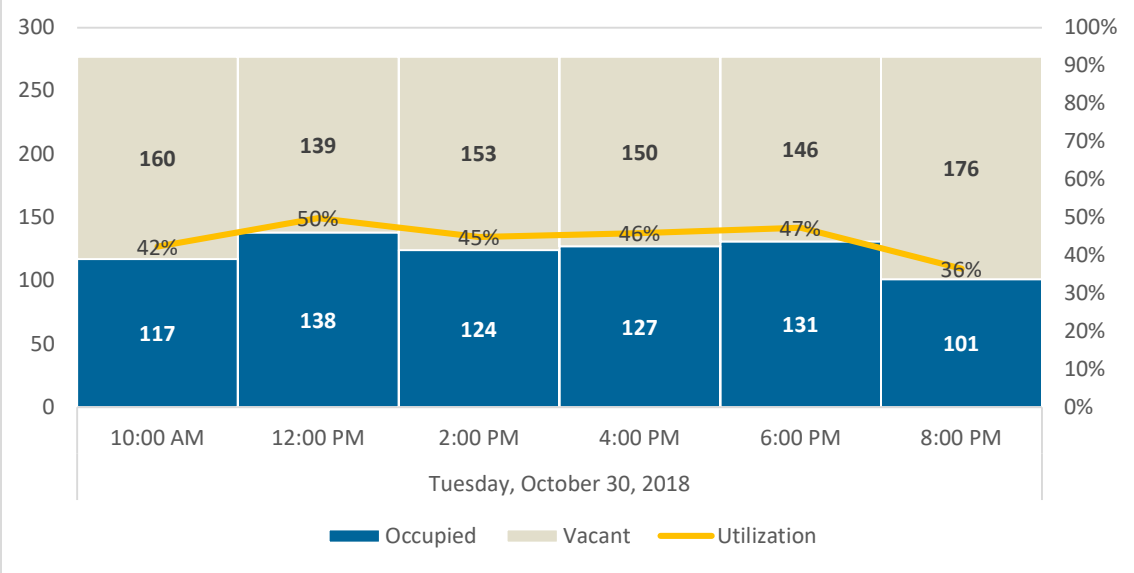


Figure 26 On-Street Parking Utilization – Zone 1 – Weekday

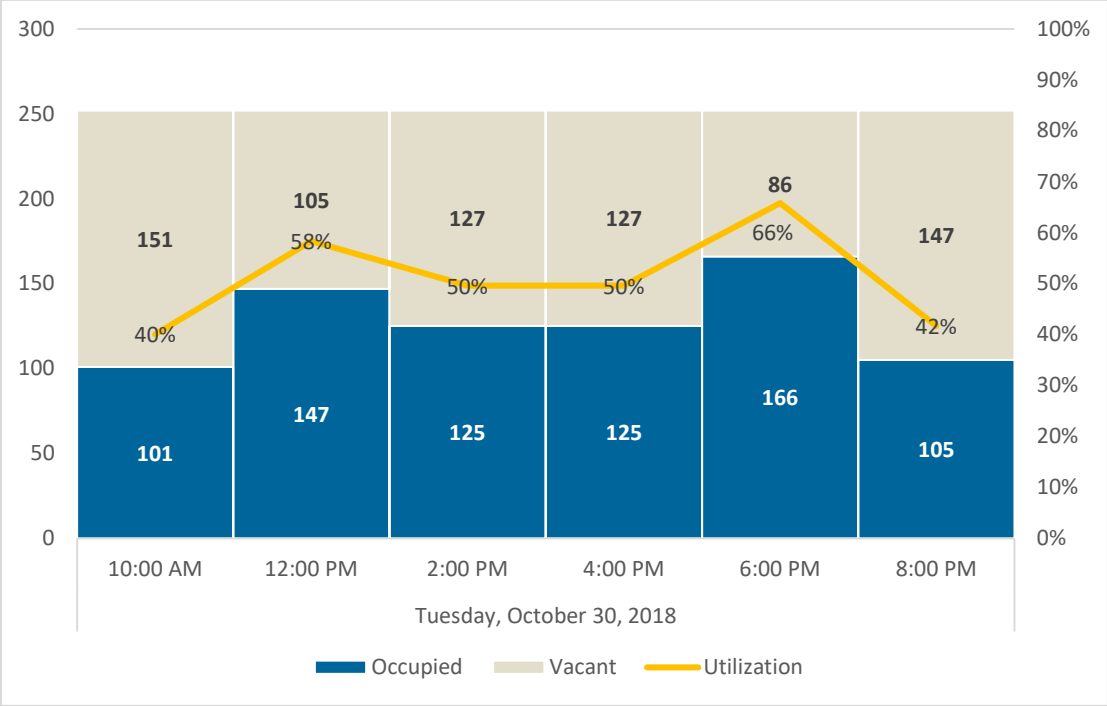


Figure 27 Zone 1 Parking Utilization – Weekend

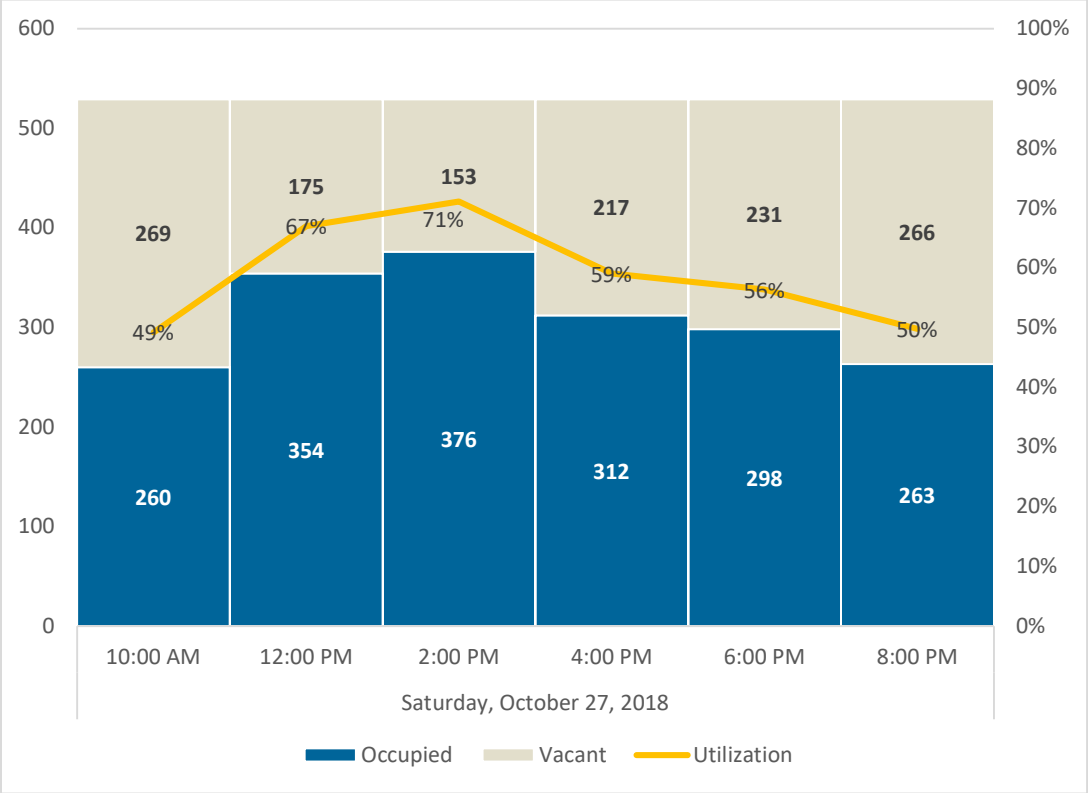


Figure 28 Off-Street Parking Utilization – Zone 1 – Weekend

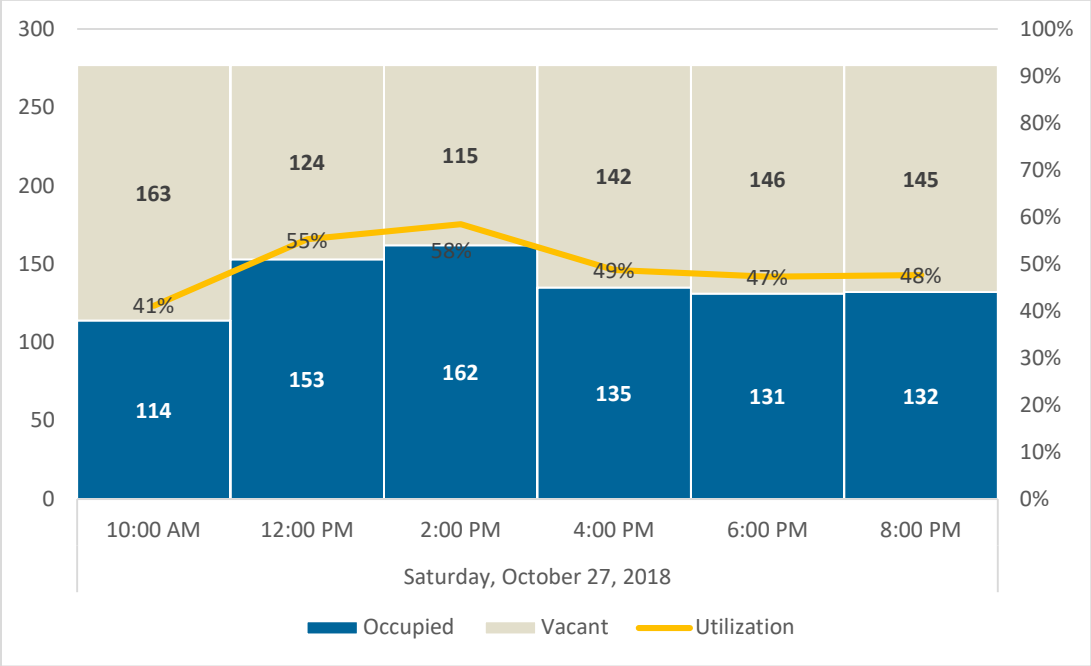
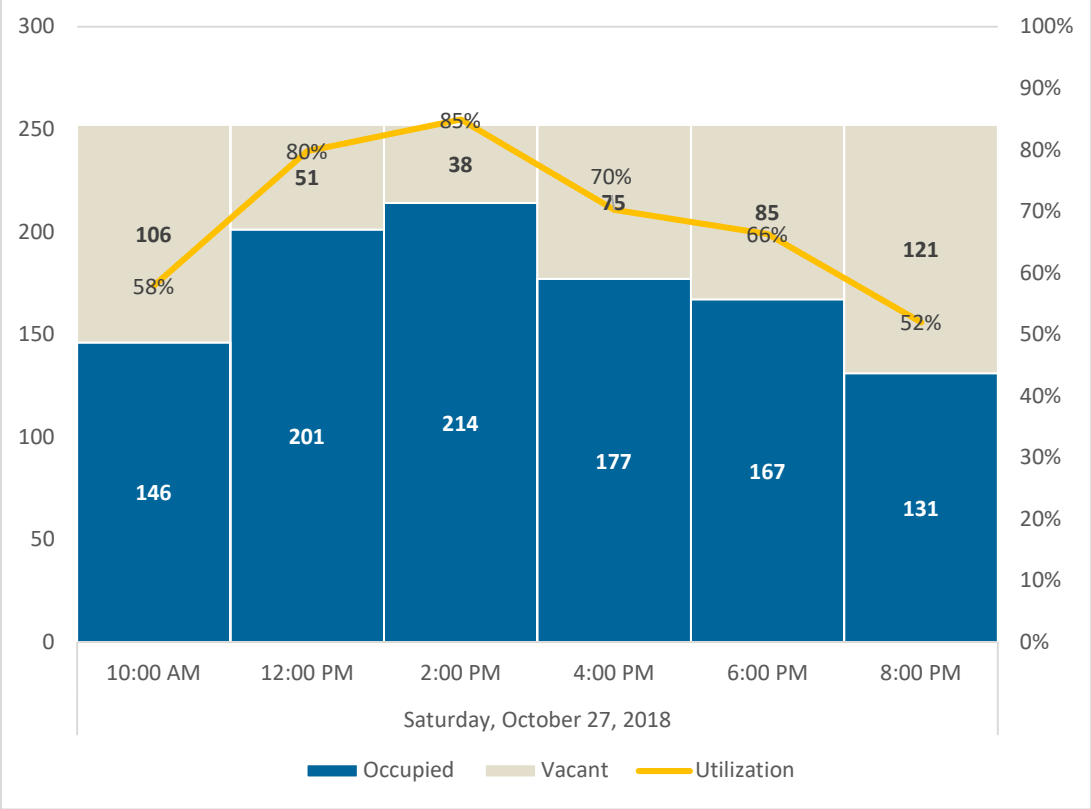


Figure 29 On-Street Parking Utilization – Zone 1 – Weekend



Special Event Parking Demand (Zone 1)

During special events, such as the summer concert series held on the Town Green, parking utilization in Zone 1 increases significantly above the weekday baseline, increasing from 57% to 90% overall (see Figure 30). On-street parking becomes functionally full during special events, with utilization exceeding the official supply. Off-street parking, meanwhile is 67% utilized.

Figure 30 Baseline and Special Event Parking Utilization – Zone 1

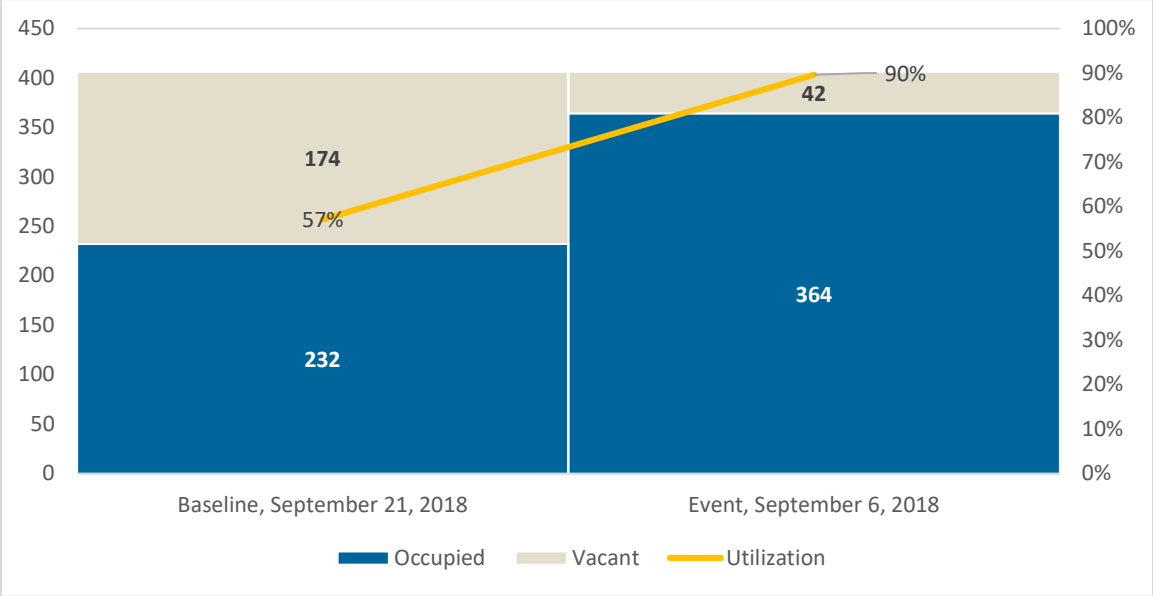


Figure 31 Baseline and Special Event Off-Street Parking Utilization – Zone 1

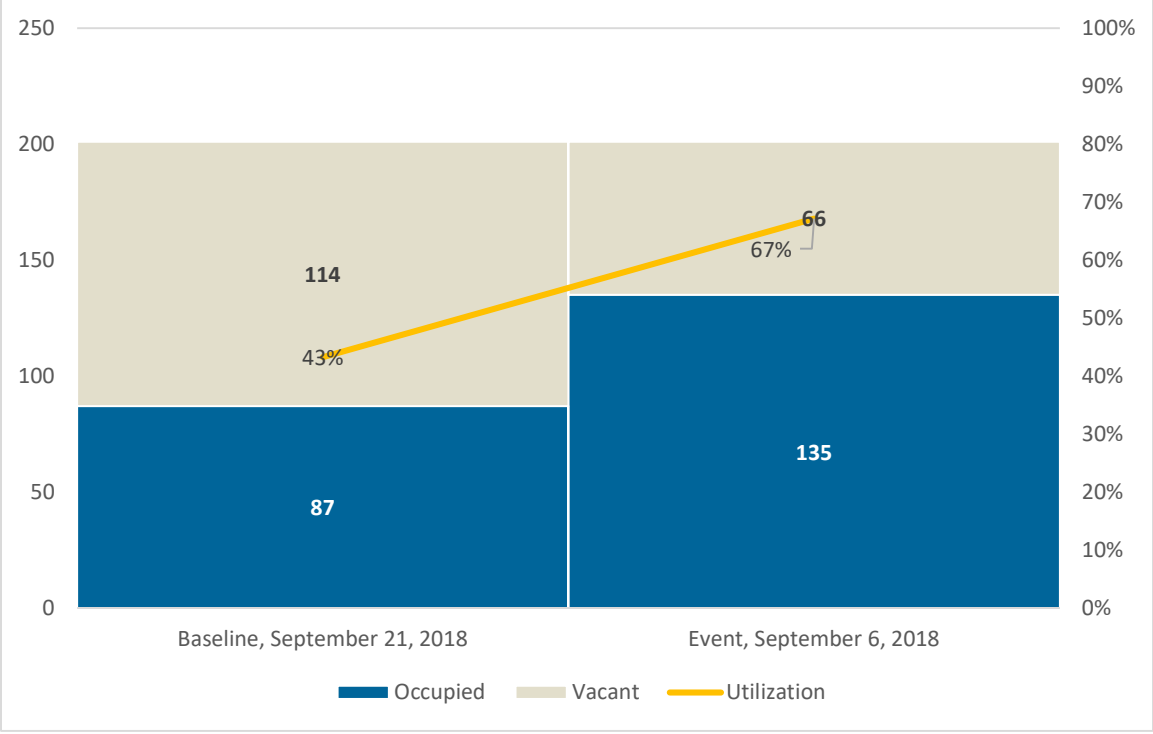
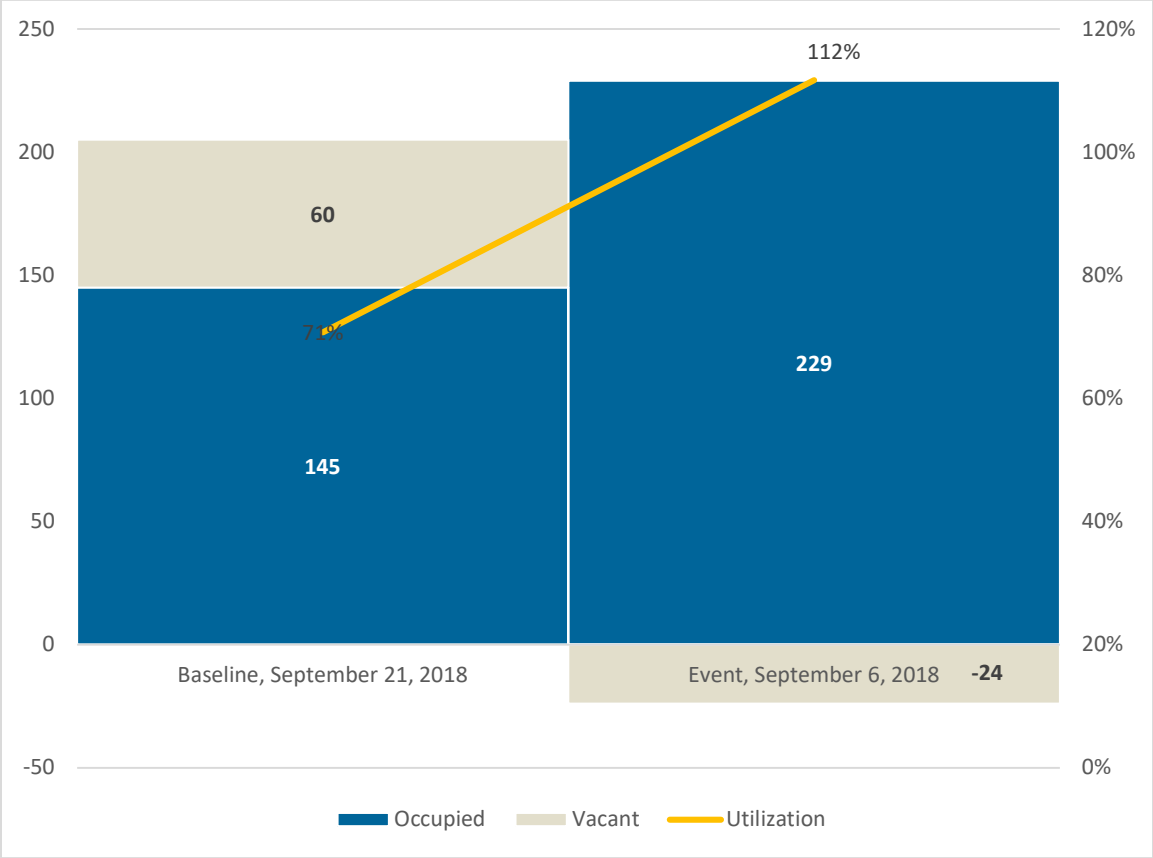


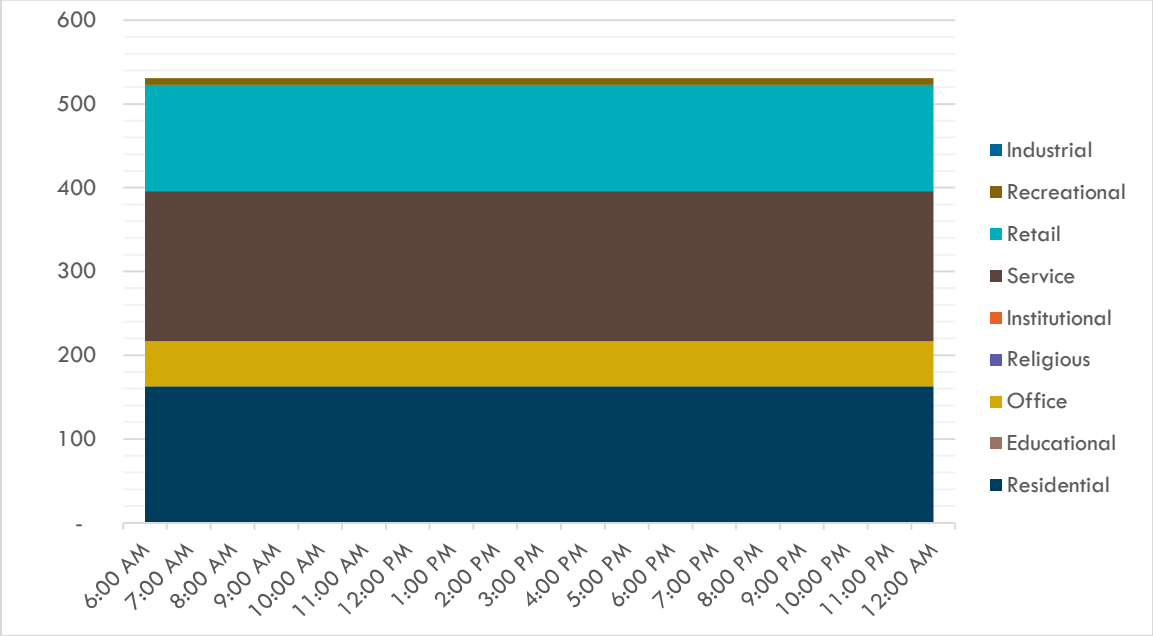
Figure 32 Baseline and Special Event On-Street Parking Utilization – Zone 1



Existing Shared Parking Analysis (Zone 1)

According to national parking standard calculations from ITE, the needed number of parking spaces for Zone 1 is 618 spaces, equipped to handle a peak parking demand of 552 spaces (see Figure 33). Zone 1 has a total of 554 spaces. This indicates that parking is unlikely to be constrained under current conditions within Zone 1 because, even before accounting for the impacts of shared parking, there is sufficient parking supply to accommodate unshared demand.

Figure 33 Existing Unshared Demand – Zone 1, Weekday



The shared parking model shows the number of parking spaces needed after factoring in time of day demands by land use and Windsor's mixed-use environment. The estimates show that the peak demand is at 6 PM with 272 spaces. Using the same parking utilization counts shown in Figure 35, when overlaid on the expected parking demand based on land use, shows that observed demand is slightly higher than the shared parking model's estimate. However, there is still adequate supply to meet demand, both estimating by land use and when counting today's parking demand.

Figure 34 Existing Shared Demand – Zone 1, Weekday

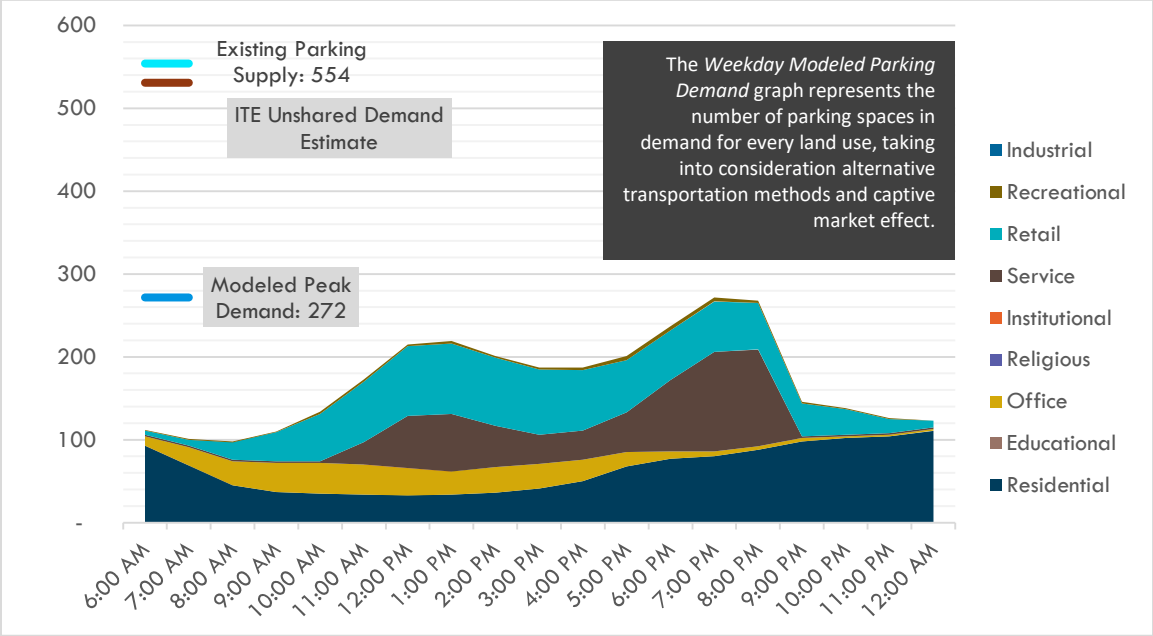
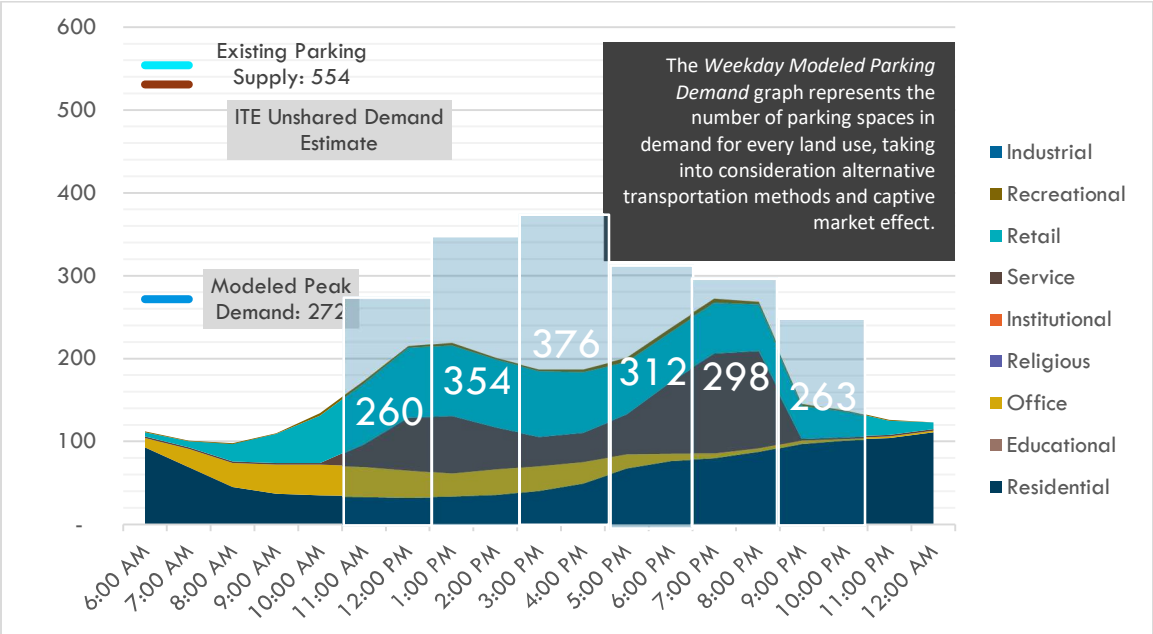


Figure 35 Existing Shared Demand with Observed Demand – Zone 1, Weekday



Zone 2

Land Use (Zone 2)

Overall, there are 130 dwelling units and about 207,000 square feet of non-residential space in Zone 2. Land uses are grouped as accurately as possible into land use categories created by the ITE's *Parking Generation, 5th Edition* (2019), as shown in Figure 37.

Figure 36 Zone 2 Detail



Figure 37 Land Use Intensity by Category – Zone 2

Land Use	Amount	Units	ITE Parking Ratio (5th Ed) for Comparison
Industrial			
General Light Industrial	42,500	square feet	0.75
Retail			
Shopping Center	53,283	square feet	2.55
Suburban Supermarket/Public Market	35,759	square feet	3.78
Service			
Quality Restaurant	1,853	square feet	10.6
High Turnover Restaurant (Suburban)	8,443	square feet	10.6
Fast Food Restaurant (w Drive-thru)	4,351	square feet	9.98
Bakery/Café (w/out Drive-thru)	2,582	square feet	12.77
Auto Service	2,561	Square feet	4.17
Office			

Office (Suburban)	35,255	square feet	2.84
Government Office	20,181	square feet	3.2
Residential/Lodging			
Low to Mid Rise Apartment (Suburban)	50	Units	1.23
Rental Townhouse	15	units	1.62
Residential Condo/Townhouse	65	units	1.38

Source: County of Sonoma Assessor's Office

Existing Parking Supply and Demand (Zone 2)

In Zone 2, there are 1,094 spaces. At peak on a weekday (12 PM), 56% of the parking supply is utilized, as shown in Figure 38. Off-street and on-street parking facilities experience 55% and 60% utilization, respectively (Figure 39 and Figure 40).

On weekends, parking utilization in Zone 2 is similarly moderate, peaking at 2 PM at 51% overall (see Figure 41). On-street parking has generally higher utilization, with 68% occupancy (see Figure 43), while off-street parking facilities had a lower utilization of 46% (see Figure 42).

Figure 38 Zone 2 Parking Utilization – Weekday

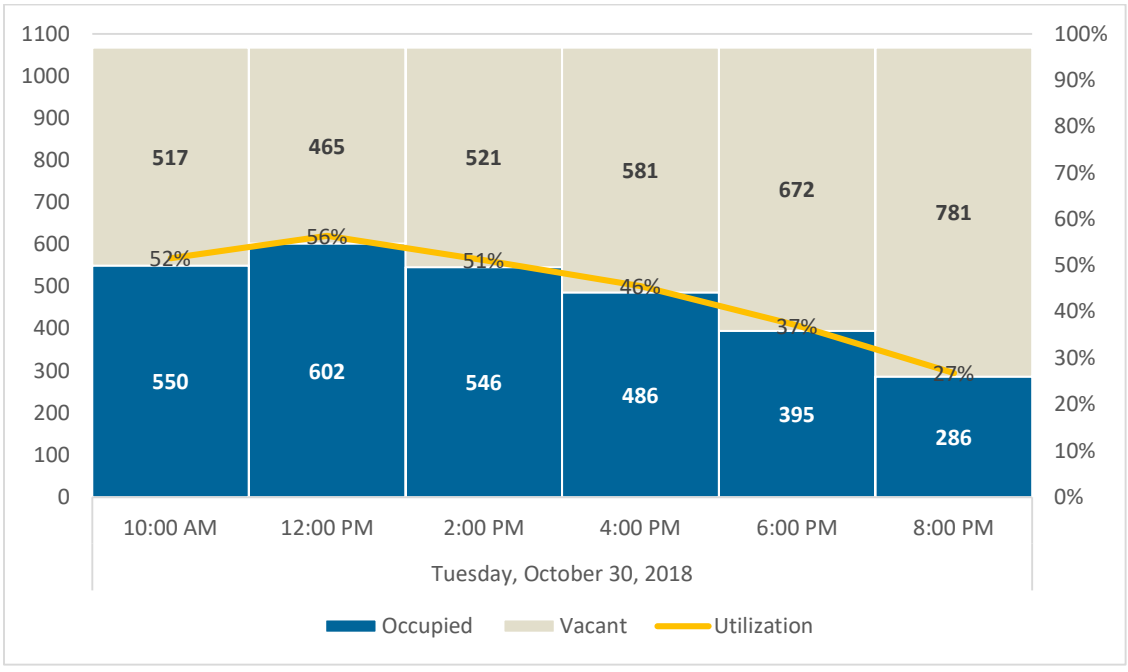


Figure 39 Off-Street Parking Utilization – Zone 2 – Weekday

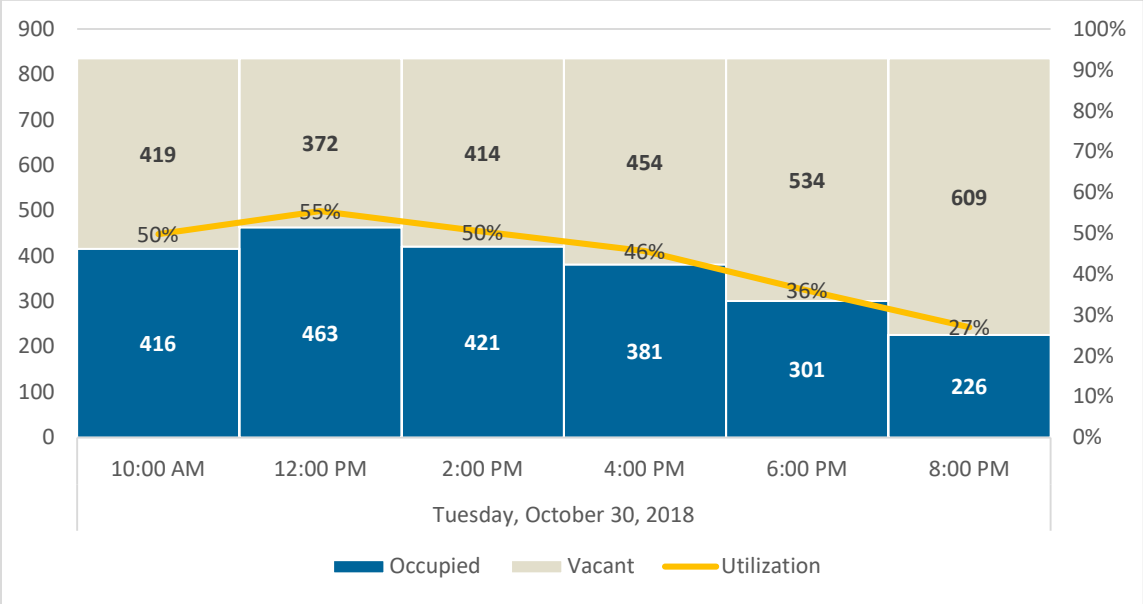


Figure 40 On-Street Parking Utilization – Zone 2 – Weekday

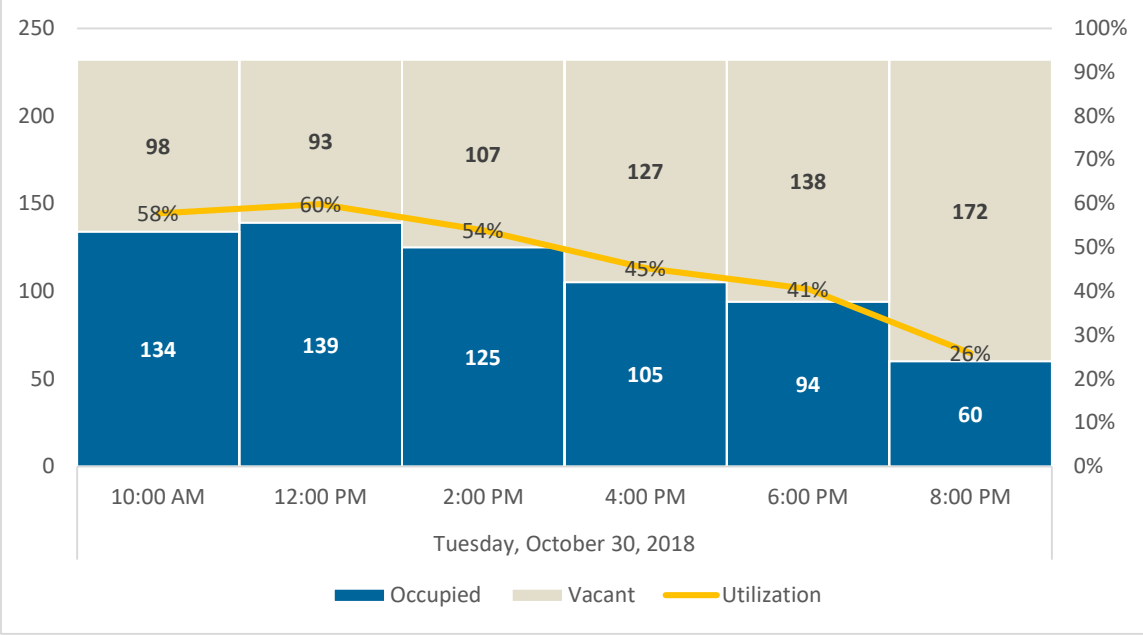


Figure 41 Zone 2 Parking Utilization – Weekend

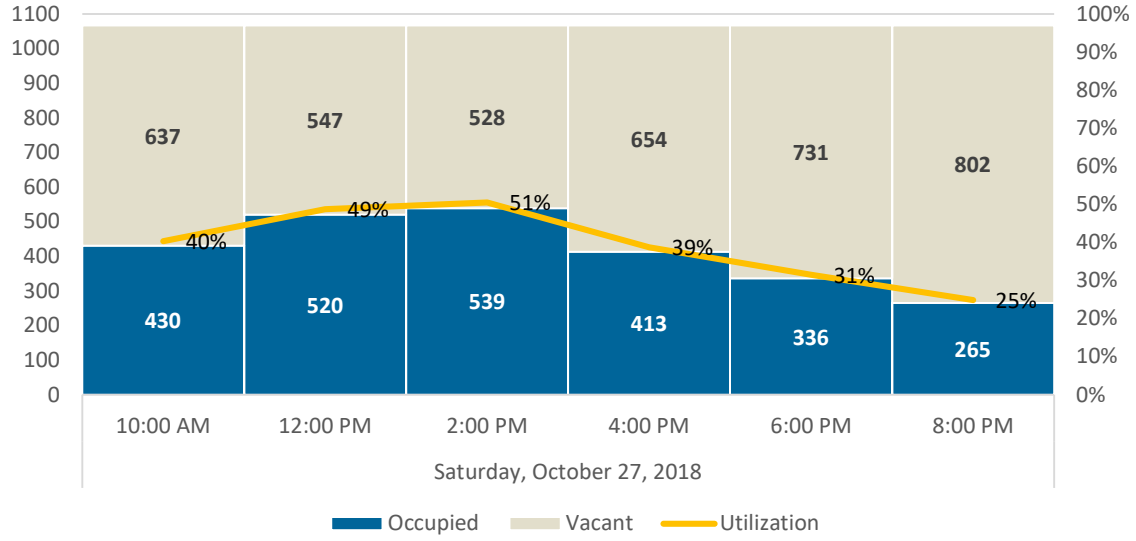


Figure 42 Off-Street Parking Utilization – Zone 2 – Weekend

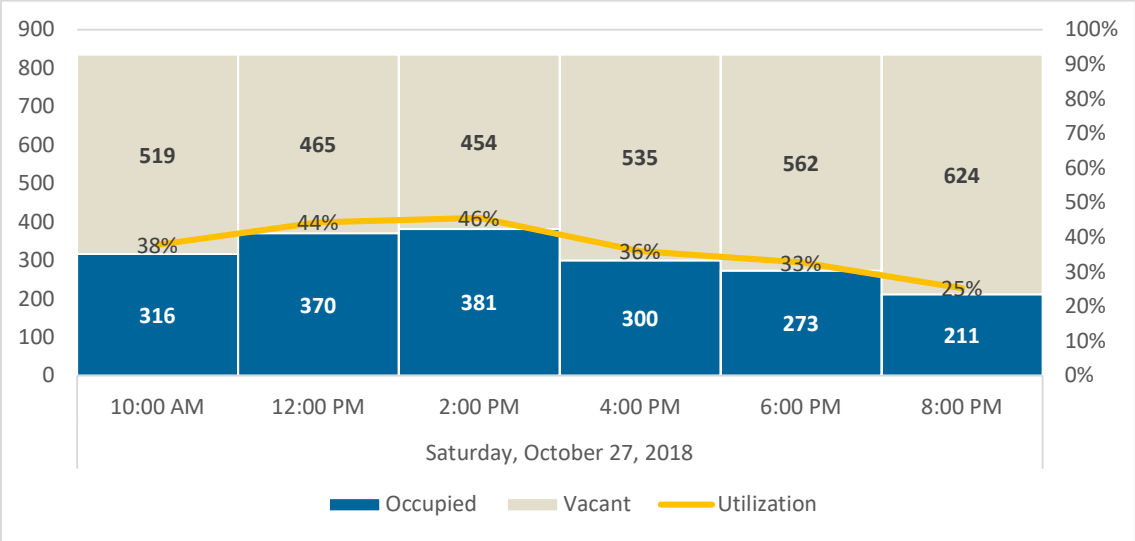
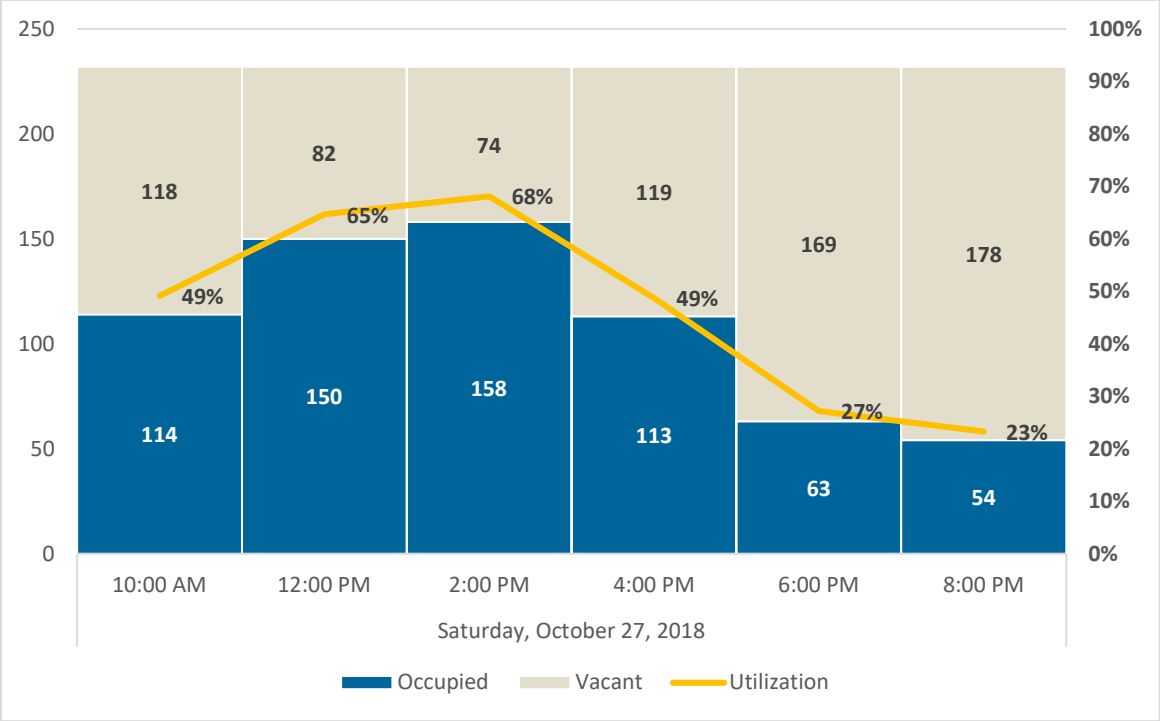


Figure 43 On-Street Parking Utilization – Zone 2 – Weekend



Special Event Parking Demand (Zone 2)

During special events, such as the summer concert series held on the Town Green, parking utilization in Zone 2 is a moderate 59% overall (see Figure 44). On-street parking becomes significantly more utilized during special events, with utilization of 78%, while off-street parking has 52% utilization.

Figure 44 Baseline and Special Event Parking Utilization – Zone 2

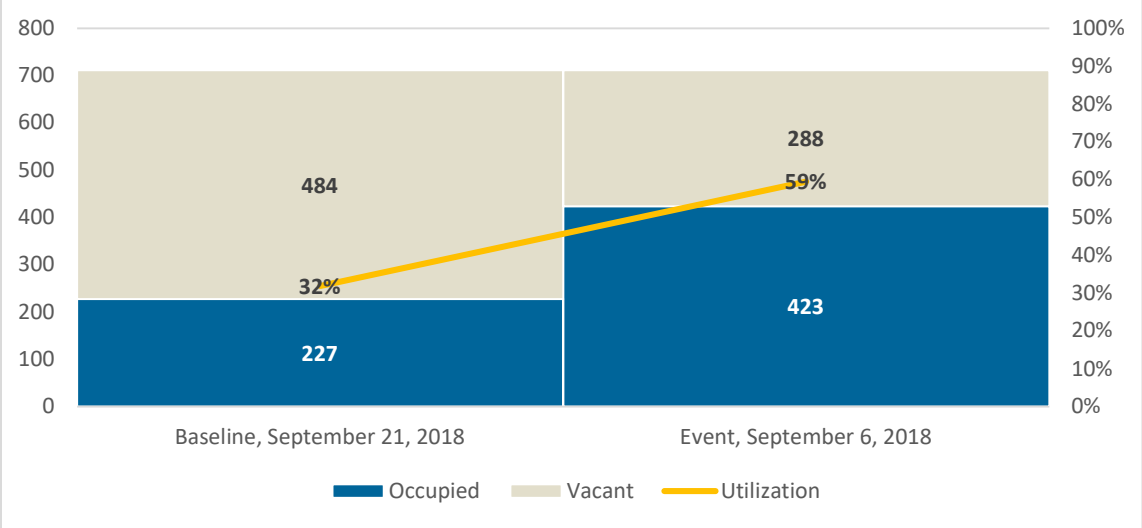


Figure 45 Baseline and Special Event Off-Street Parking Utilization – Zone 2

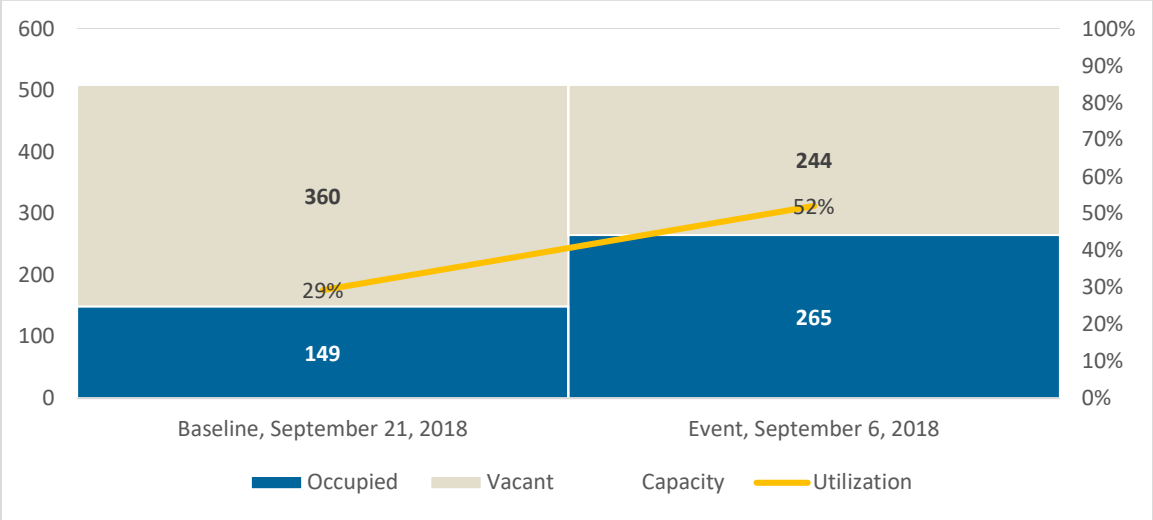
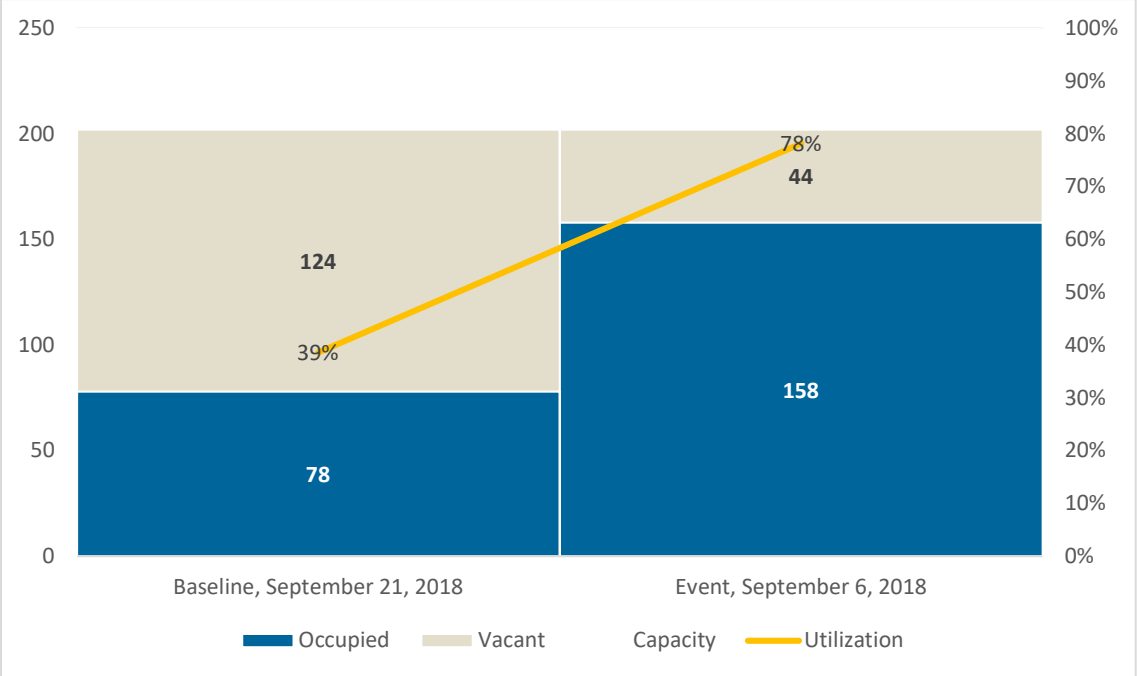


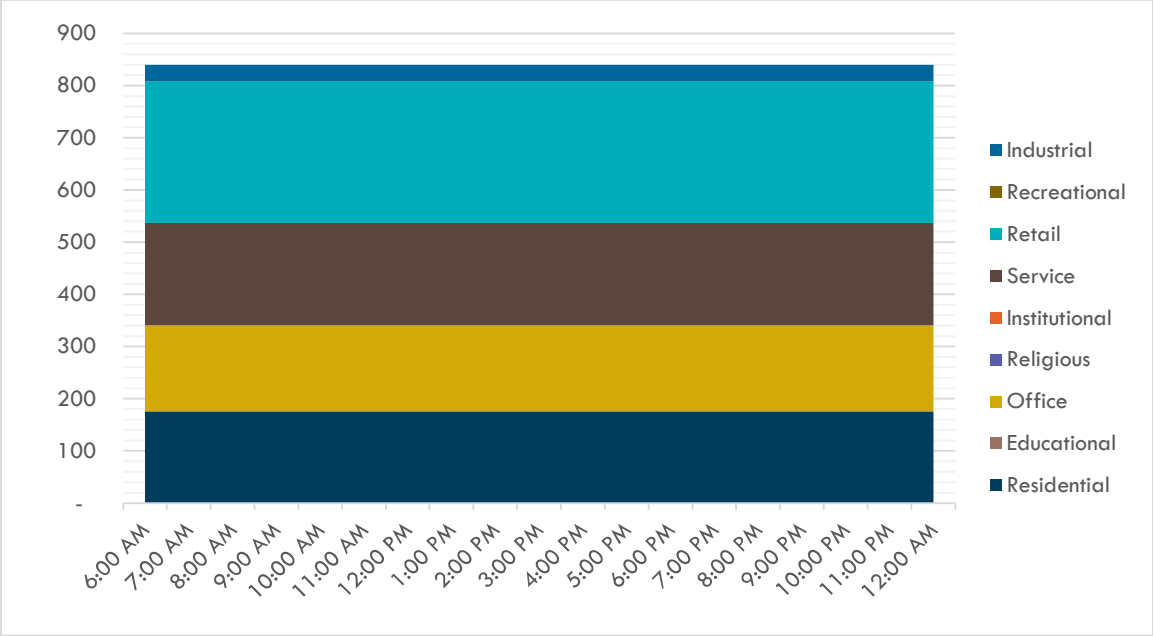
Figure 46 Baseline and Special Event On-Street Parking Utilization – Zone 2



Existing Shared Parking Analysis (Zone 2)

According to national parking standard calculations from ITE, the needed number of parking spaces for Zone 2 is 924 spaces, equipped to handle a peak parking demand of 840 spaces (see Figure 47). Zone 2 has a total of 1,094 spaces. This indicates that parking is unlikely to be constrained under current conditions within Zone 2 because, even before accounting for the impacts of shared parking, there is sufficient parking supply to accommodate unshared demand.

Figure 47 Existing Unshared Demand – Zone 2, Weekday



The shared parking model shows the number of parking spaces needed after factoring in time of day demands by land use and Windsor's mixed-use environment. The estimates show that the peak demand is at 12 PM with 438 spaces. Using the same parking utilization counts shown in Figure 49, when overlaid on the expected parking demand based on land use, observed demand matches the shared parking model's estimate—with the exception of higher observed demand during the afternoon up till 5 PM. Even with this uptick in utilization, there is adequate existing supply to meet demand throughout the day, both estimating by land use and when counting today's parking demand.

Figure 48 Existing Shared Demand – Zone 2, Weekday

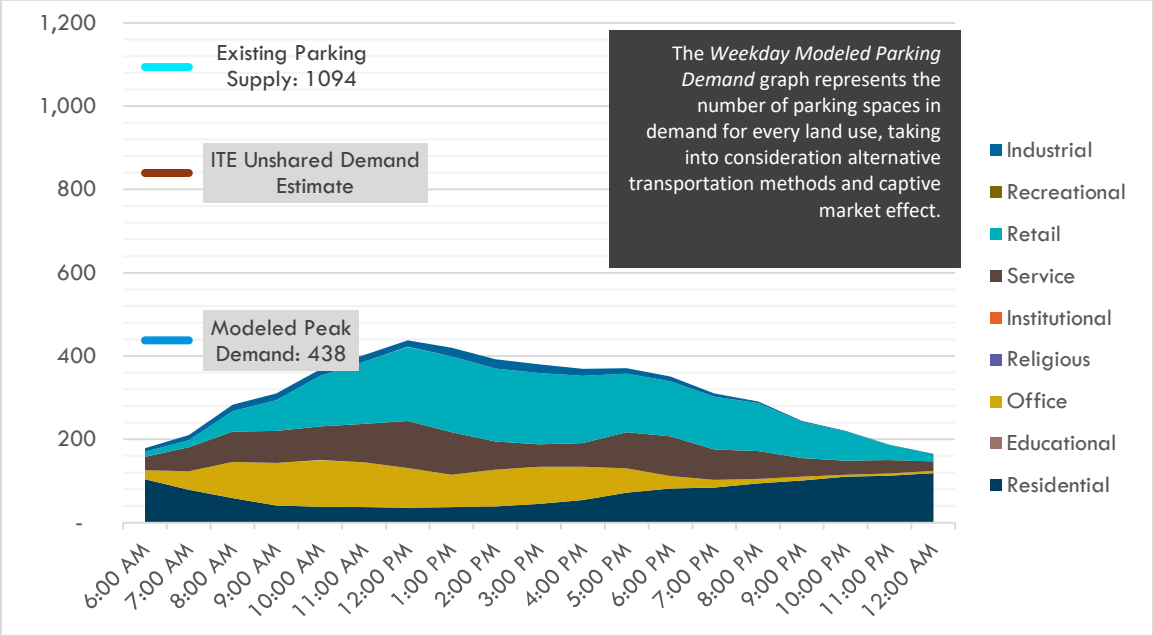
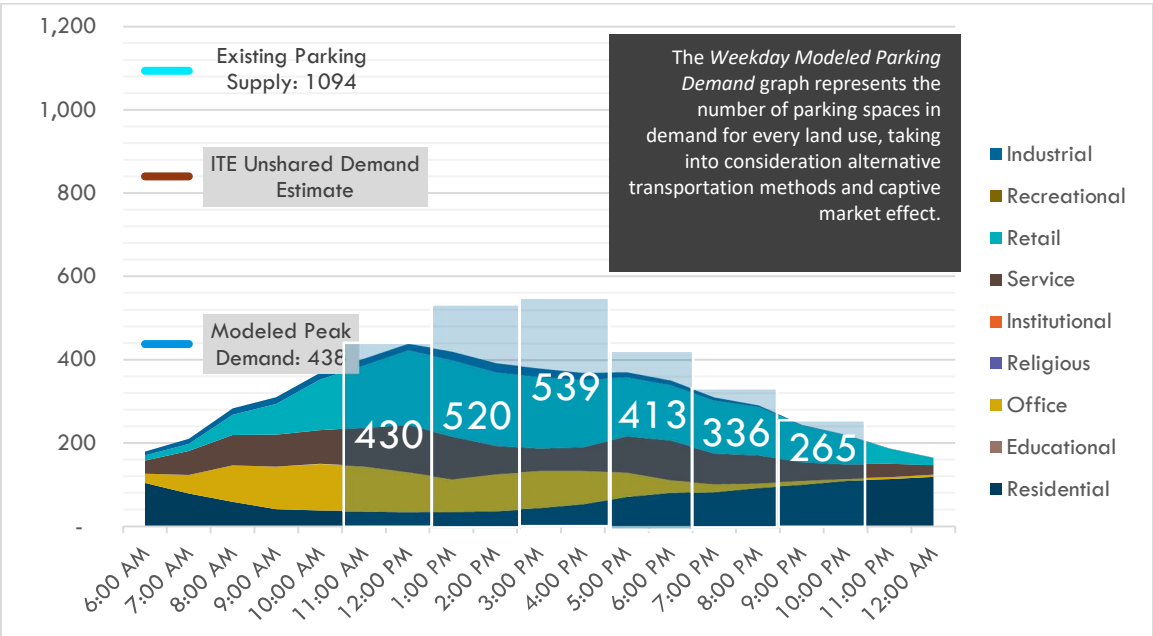


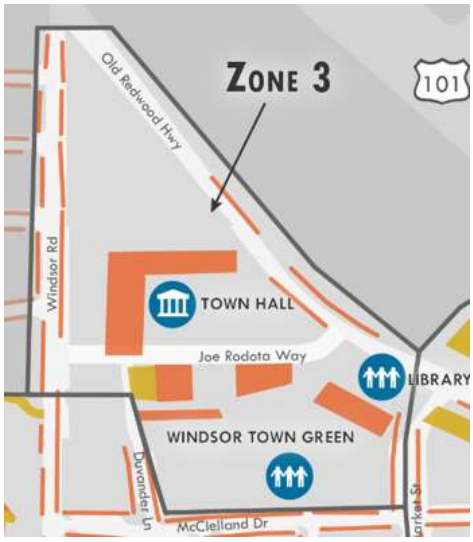
Figure 49 Existing Shared Demand with Observed Demand – Zone 2, Weekday



Zone 3

Land Use (Zone 3)

Figure 50 Zone 3 Detail



Overall, there are 63 dwelling units and about 89,000 square feet of non-residential space in Zone 3. Land uses are grouped as accurately as possible into land use categories created by the ITE's *Parking Generation, 5th Edition* (2019), as shown in Figure 51.

Figure 51 Land Use Intensity by Category – Zone 1

Land Use	Amount	Units	ITE Parking Ratio (5th Ed) for Comparison
Industrial			
Manufacturing	44,341	square feet	1.02
Recreational			
Recreation or Community Center	10,295	square feet	3.20
Office			
Government Office	27,059	square feet	3.2
Residential/Lodging			
Low to Mid Rise Apartment (Suburban)	54	Units	1.23
Rental Townhouse	6	units	1.62
Residential Condo/Townhouse	3	units	1.38

Source: County of Sonoma Assessor's Office

Existing Parking Supply and Demand (Zone 3)

In Zone 3, there are 301 spaces. At peak on a weekday (10 AM), 49% of the parking supply is utilized, as shown in Figure 52. Off-street parking facilities contribute to the utilization on

weekdays, peaking at 71% at 10 AM, compared to on-street utilization, which peaks at 16% at 2 PM (see Figure 53 and Figure 54).

On weekends, parking utilization in Zone 3 is higher (possibly due to weekend demand for visiting Town Green, restaurants, and shopping), peaking at 2 PM at 64% overall (see Figure 55). Off-street parking approaches optimal utilization with 82% occupancy at 2 PM (see Figure 56), while on-street parking facilities continues to see lower utilization, peaking at 37% the same time (see Figure 57).

Figure 52 Zone 3 Parking Utilization – Weekday

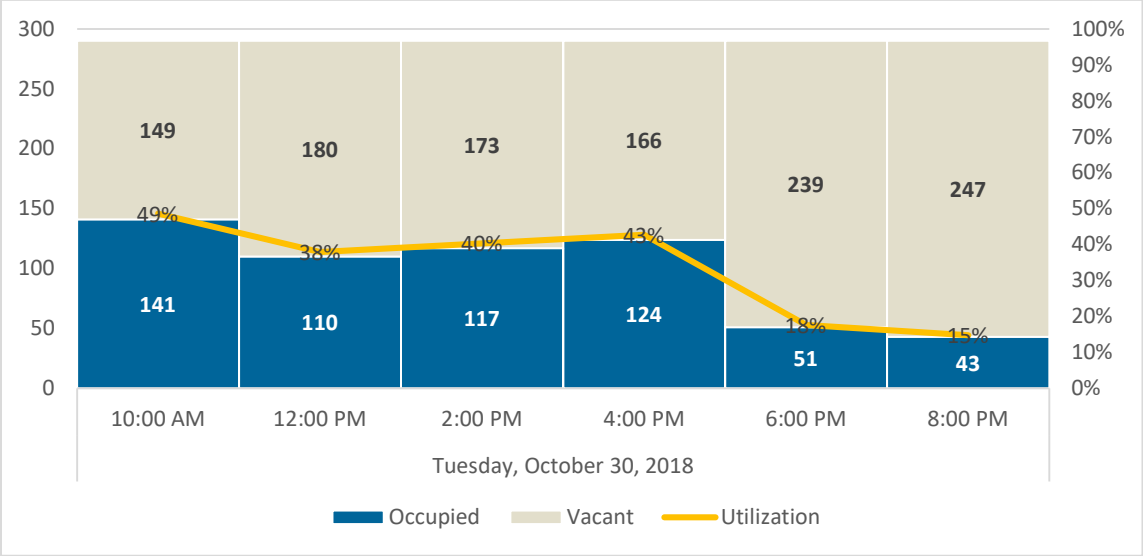


Figure 53 Off-Street Parking Utilization – Zone 3 – Weekday

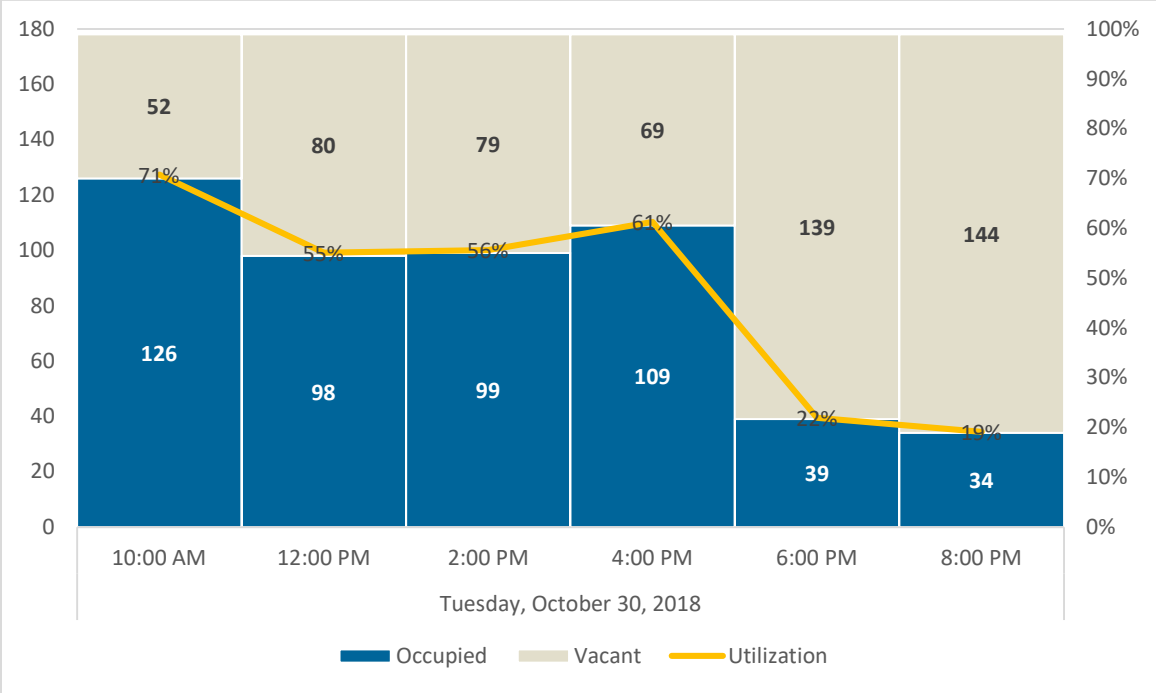


Figure 54 On-Street Parking Utilization – Zone 3 – Weekday

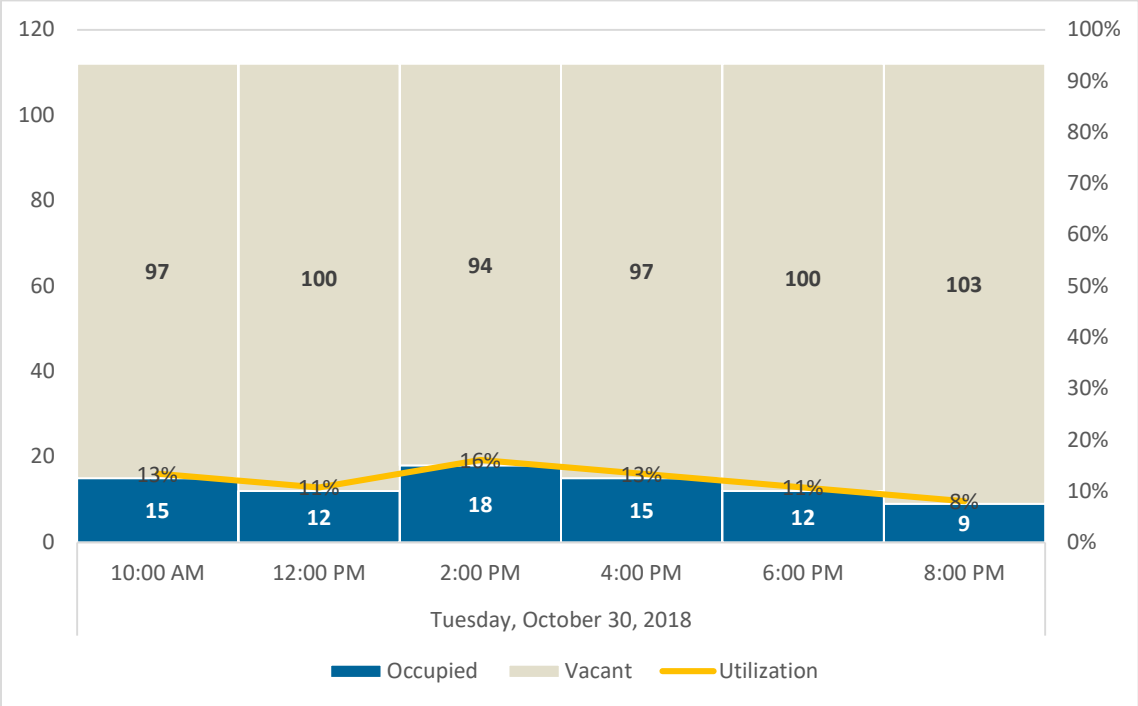


Figure 55 Zone 3 Parking Utilization – Weekend

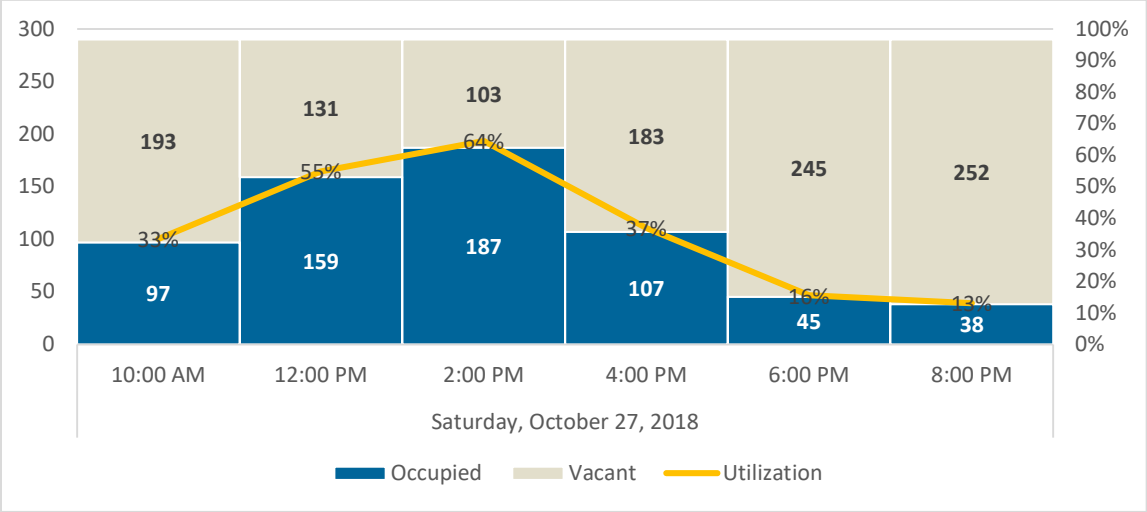


Figure 56 Off-Street Parking Utilization – Zone 3 – Weekend

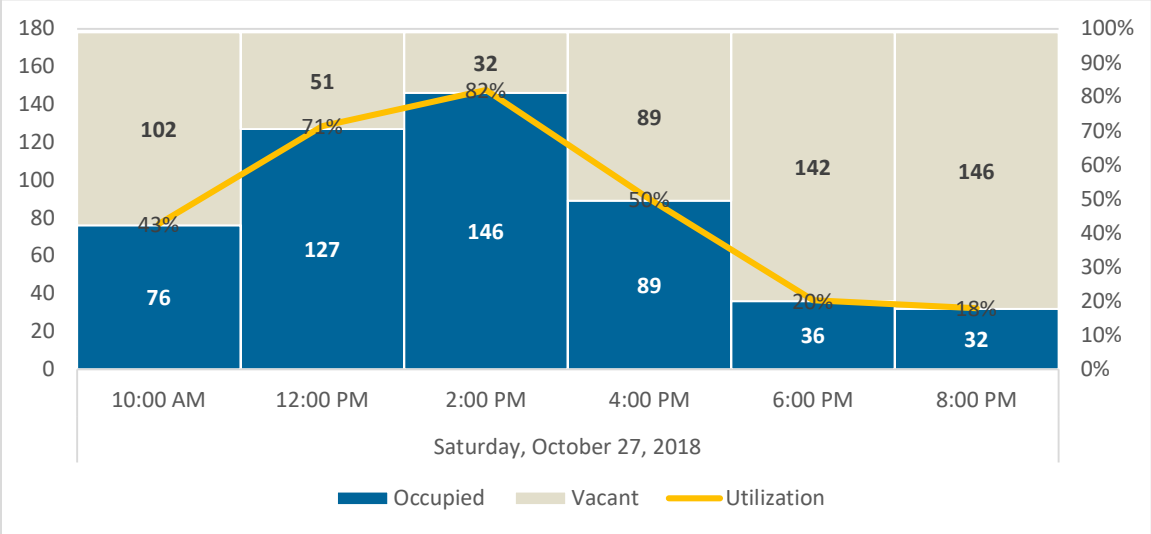
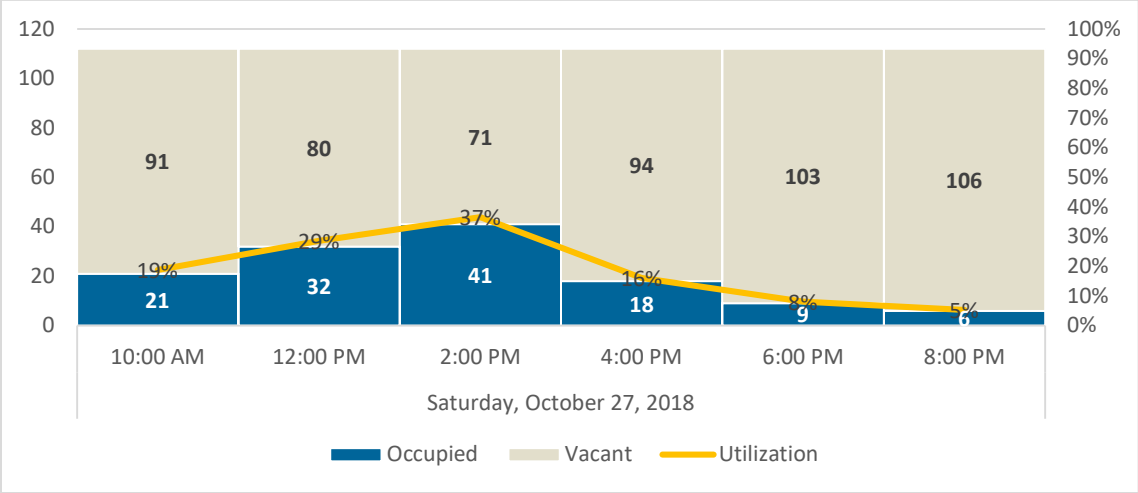


Figure 57 On-Street Parking Utilization – Zone 3 – Weekend



Special Event Parking Demand (Zone 3)

During special events, such as the summer concert series held on the Town Green, parking utilization in Zone 3 increases significantly above the weekday baseline and becomes highly oversubscribed (see Figure 58). Both on-street and off-street parking become functionally full during special events as well. These high rates of utilization result in unmet parking demand that spills over onto neighboring residential streets outside of the Total Study Area.

Figure 58 Baseline and Special Event Parking Utilization – Zone 3

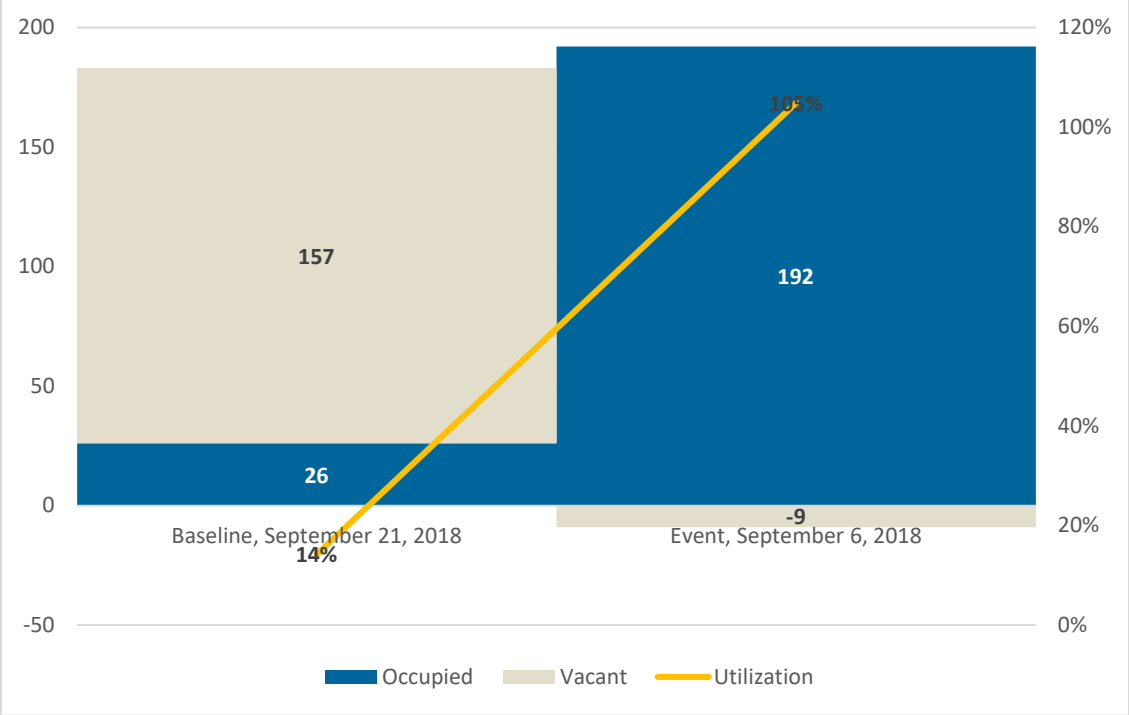


Figure 59 Baseline and Special Event Off-Street Parking Utilization – Zone 3

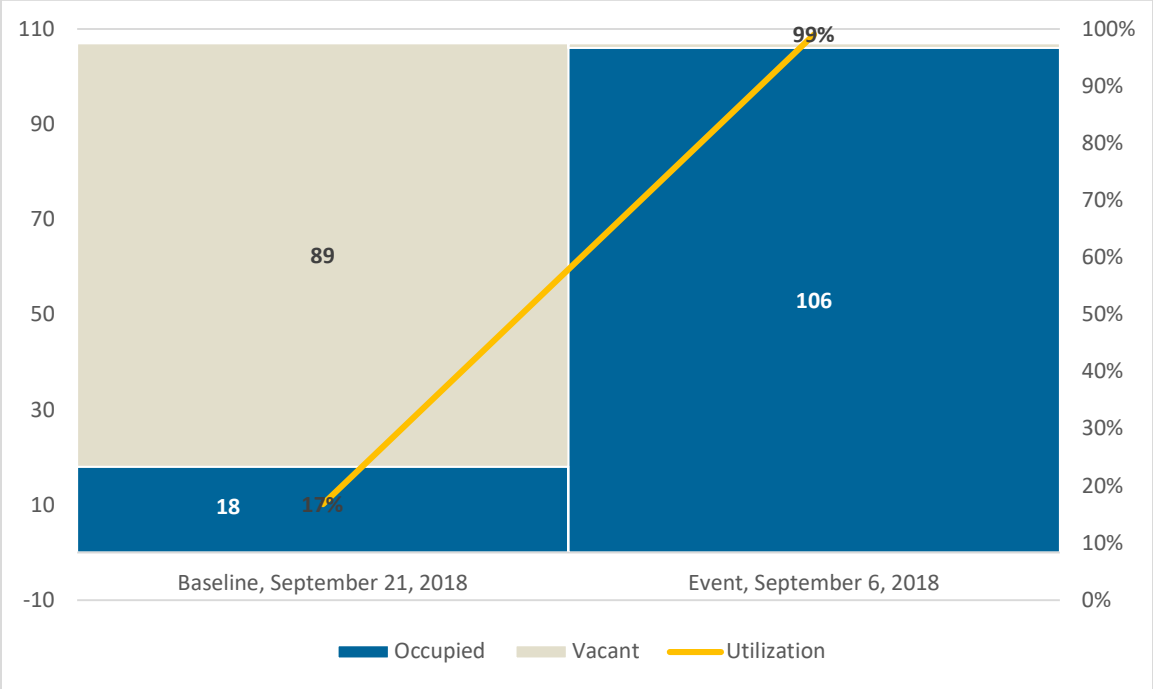
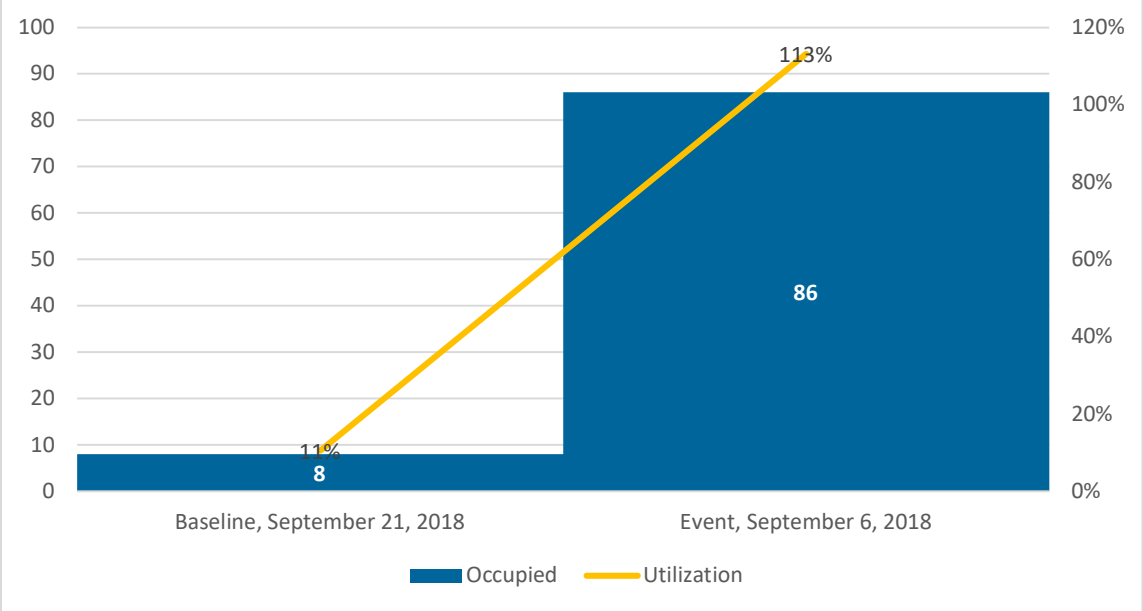


Figure 60 Baseline and Special Event On-Street Parking Utilization – Zone 3

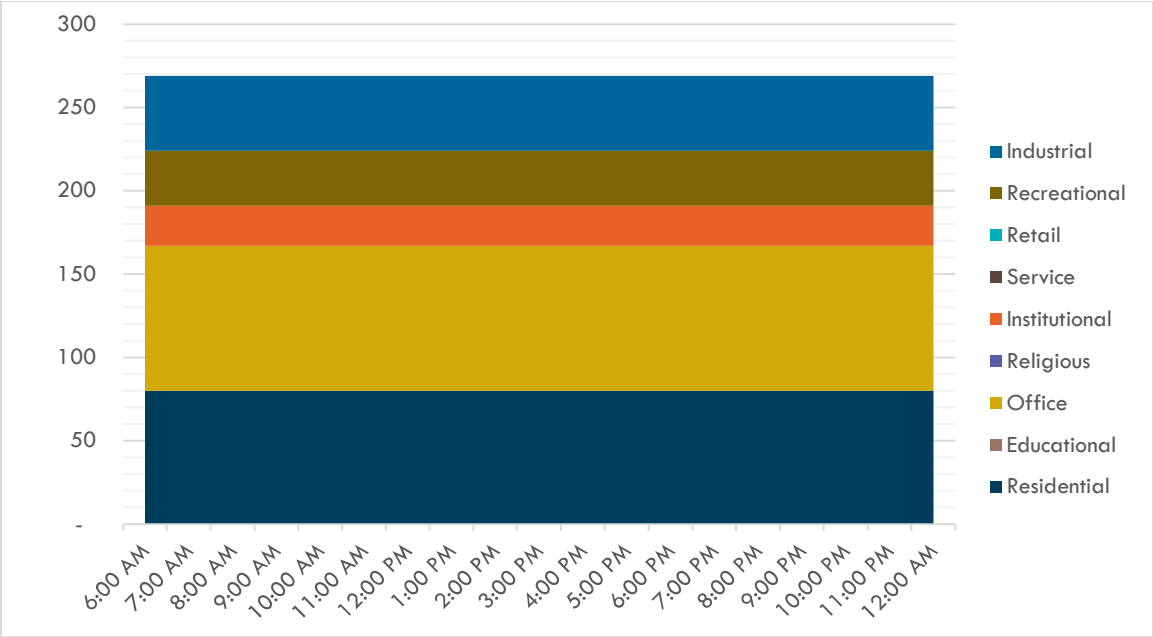


Existing Shared Parking Analysis (Zone 3)

According to national parking standard calculations from ITE, the needed number of parking spaces for Zone 3 is 296 spaces, equipped to handle a peak parking demand of 269 spaces (see Figure 61). Zone 3 has a total of 301 spaces. This indicates that parking is unlikely to be

constrained under current conditions within Zone 3 because, even before accounting for the impacts of shared parking, there is sufficient parking supply to accommodate unshared demand.

Figure 61 Existing Unshared Demand – Zone 3, Weekday



The shared parking model shows the number of parking spaces needed after factoring in time of day demands by land use and Windsor's mixed-use environment. The estimates show that the peak demand is at 10 AM with 119 spaces. Using the same parking utilization counts shown in Figure 62, when overlaid on the expected parking demand based on land use, shows that observed demand closely matches the shared parking model's estimate. Thus there is adequate supply to meet demand, both estimating by land use and when counting today's parking demand.

Figure 62 Existing Shared Demand – Zone 3, Weekday

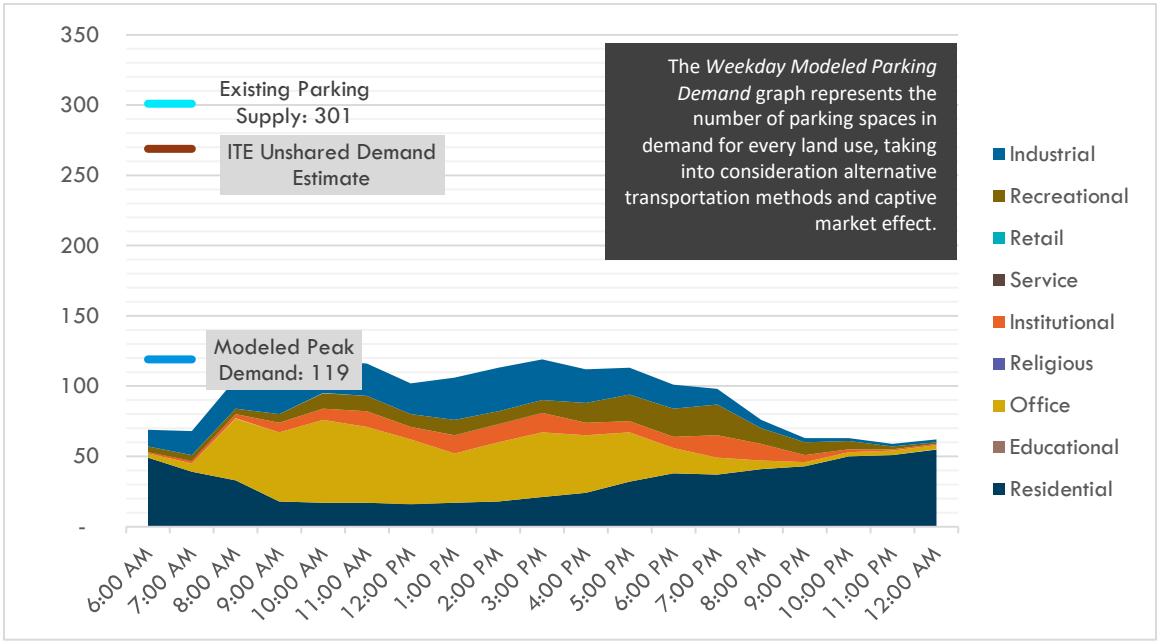
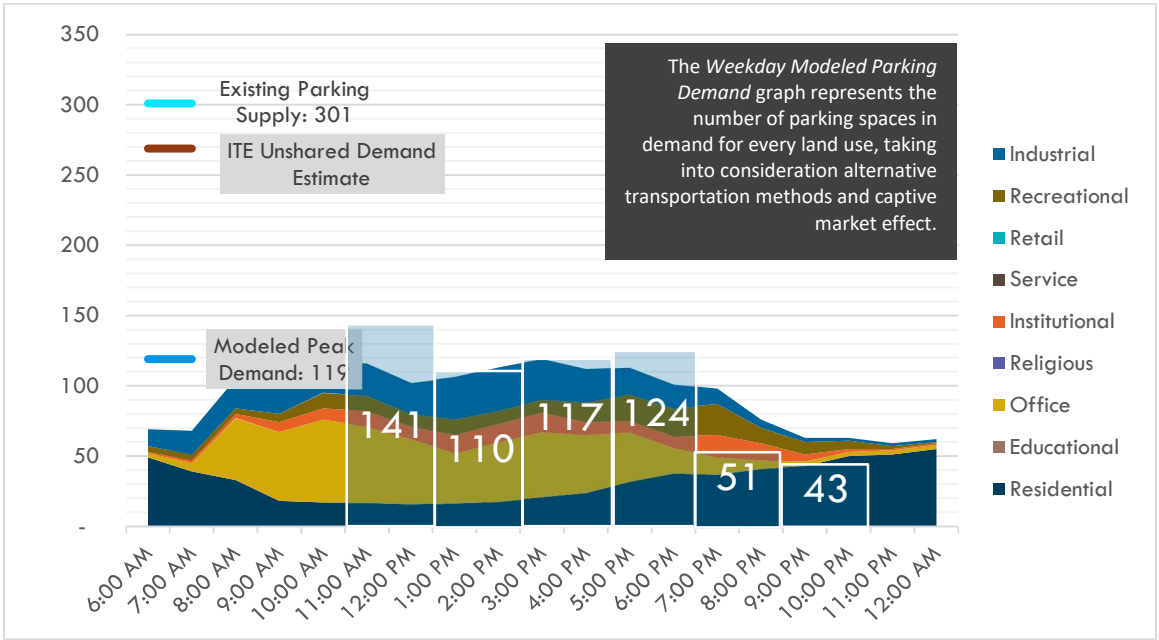


Figure 63 Existing Shared Demand with Observed Demand – Zone 3, Weekday



SUMMARY OF EXISTING OBSERVED AND MODELLED DEMAND

Figure 64 Initial Summary of Parking Supply and Demand Findings (Observed and Modelled)

Category of Analyses	Area	Total Study Area	Zone 1	Zone 2	Zone 3
	Notable Landmark	Downtown	West of Market Street / SMART Station	East of Market Street/Bell Village Commercial Center	Joe Rodota Way/Civic Center Area
Observed Inventory	**Total Existing Parking Supply**	1949	554	1094	301
	Supply Currently Restricted	1129	152	835	21
	% of Total Supply Currently Restricted	58%	27%	76%	7%
Observed Utilization	**Peak Weekday Utilization**	53%	56%	56%	49%
	Peak Weekday Time	12:00 PM	6:00 PM	12:00 PM	10:00 AM
	Peak Weekend Utilization	58%	71%	51%	64%
	Peak Weekend Time	2:00 PM	2:00 PM	2:00 PM	2:00 PM
	Peak Special Event Utilization	75%	90%	59%	105%
Existing Demand	**ITE Unshared Demand**	1779	552	840	296
	Observed Peak Demand	1130	393	613	193
	Modelled Peak Demand	785	272	438	119

Note: Total Study Area outputs are calculated as a whole single entity, and thus modelled outputs may not necessarily be a sum of the three zones.

FUTURE LAND USES AND POTENTIAL EFFECTS ON PARKING DEMAND

Significant new developments anticipated in Downtown Windsor include, but are not limited to, the following projects:

- Chevron Station expansion/remodel
- Civic Center
- McClelland Hotel
- Richardson Mixed-Use development

- Vintage Oaks on the Town Green (formerly Bell Village)
- Mill Creek (formerly known as Windsor Mill)

In addition to these developments, Downtown Windsor in the future is anchored by the SMART commuter rail station. With 681 daily boardings forecast by 2025 and limited parking provided at the station, the arrival of SMART is may increase park-and-ride demand in Downtown Windsor alongside future land use changes.[3]

As a result, new development will impact the parking and transportation supply and demand in Downtown Windsor. This chapter presents those impacts using the shared parking model. It is important to note that, like all models, this is customized to gain greater understanding of a situation based on a set of predefined circumstances that may not ultimately reflect truth. Although a parking facility does not exist in a vacuum within a mixed-use walkable district, it is still shaped by the choices made for each individual development under our system of land use controls. For example, each development may have its own set of analyses which determine the amount of demand it imposes onto the site and neighborhood.

Future Demand Model Methodology

In this section, future parking **supply** is presented as the number of parking spaces available for public access. It is calculated with the following assumptions:

- All spaces which exist today continue to have their respective availability to the general public (or lack thereof)
- All new spaces dedicated for non-residential land uses are unrestricted and available to the public (i.e., "shared")
- All new spaces dedicated for residences are restricted and thus not included in the total publicly available parking supply calculations under both shared scenarios. The justification for this assumption is the fact that a majority of future residential parking spaces as planned are going to be held in a residents-only garage, thus rendering them inaccessible and thus not part of the "public" supply.
- Site plans for proposed new developments that included planned parking supplies were used to determine future parking supplies (including additions to the public on-street parking supply as part of the development site plan).

Additionally, future parking **demand** is presented with the following assumptions:

- At the Petaluma SMART station, 41% of riders arrive at by driving alone,[4] and SMART staff expect a similar drive-alone mode share at the planned Windsor station. The SMART forecast assumes the status quo for Downtown Windsor parking. A change in Windsor's parking management policy may result in changes to how travelers access the station.
- To reflect the influence of seasonal tourism on peak parking demand, anticipated future parking demand is adjusted upward by 7% for the recreational, retail, service,

[3] SMART. 2005. Travel Demand Forecasting Report. Appendix, p. 32. With over 15 ridership forecasts for the Windsor SMART station, this estimate was included as it was above-average but not the highest possible estimate. Using this upper-range ridership estimate is a liberal assumption of the station's potential impact on the surrounding existing unregulated parking supply.

[4] SMART 2018, November 7. Board of Directors Workshop. 2017-2018 Ridership Information.

institutional, and hotel (residential) land use categories. Parking demand for office, non-hotel residential, and industrial uses do not warrant such an adjustment. The project team made this adjustment because baseline parking data collection efforts concluded in October 2018, when tourism was 7% below the annual peak in June, according to the Sonoma County Transient Occupancy Tax (TOT) records provided to the project team by the Town of Windsor.

It is important to note that, given the specifics of each development, there may be different outcomes with respect to peak periods.

For the Total Study Area, and each of the three zones, future parking is presented in the form of three charts: Future ITE Parking Standards (Fully Unshared Demand Scenario), Future Shared Scenario A, and Future Shared Scenario B. These are defined in Figure 65.

Figure 65 Overview of Future Model Chart Names

Chart Name	Definition
Future ITE Parking Standards (Fully Unshared Demand Scenario)	The full sum of each land use's parking demand if calculated as a single disconnected land use (as per ITE standards) and were thus "unshared."
Future Shared Scenario A	A shared scenario based on all of the supply assumptions (existing parking supplies carry the same restrictions, new parking supplies in residential projects are assumed as restricted and therefore not included in the shared supply)
Future Shared Scenario B	Scenario A, but with a 15% reduction in trip demand factored into the model -- due to a robust implementation of transportation demand management (TDM) programs for residents and employees. The 15% estimate is conservative; past ITE research has found 24% reductions in parking demand when combining **support services**, **transportation services**, and **economic incentives.**[5]

Total Study Area

Anticipated developments in the pipeline throughout the Total Study Area are summarized in **Error! Not a valid bookmark self-reference.**. The net change in parking provided and estimated parking demand is factored on top of the existing land use in the Total Study Area.

[55] Trip Generation Handbook, 2nd Edition. ITE pg. 129 - Districtwide Trip Generation Study, Florida Department of Transportation, District IV, March 1995

Figure 66 Parking Demand from Planned and Approved Developments in Downtown Windsor

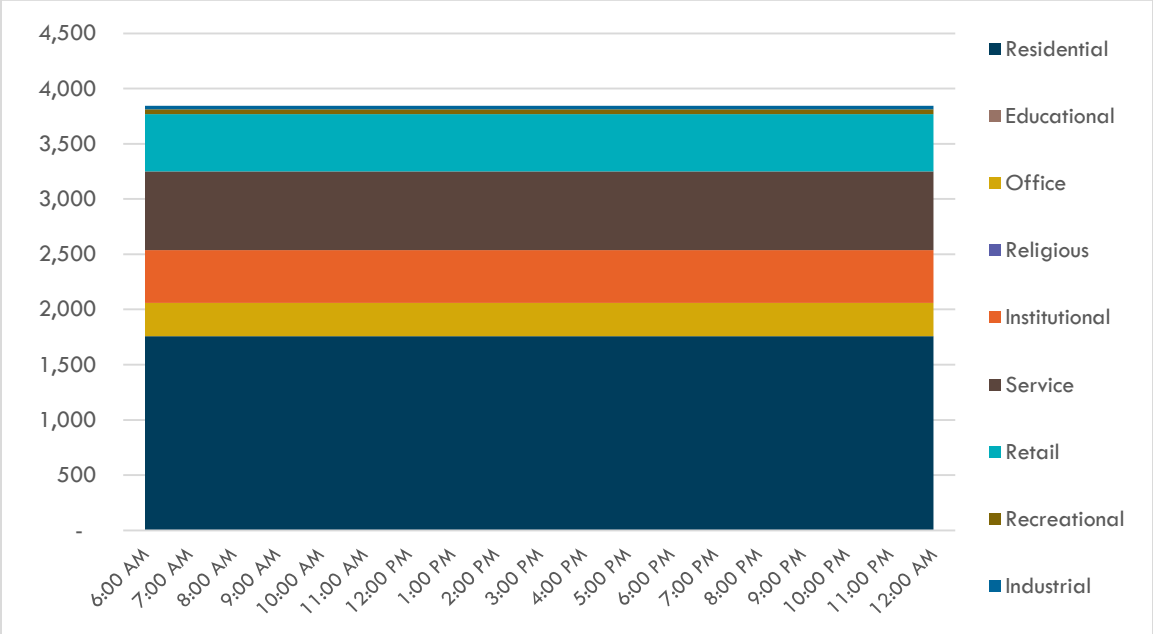
Project Name	Land Use Change(s)	ITE Land Use Code	Units	ITE Unshared Parking Demand (spaces)	Shared Parking Demand (spaces)	Parking Provided	Location	Zone	Included in Shared Supply?
Existing Parking Demand/Supply						**1,949**			
Elimination of Currently Restricted Spaces						**-1,129**			
Net?									
Chevron Expansion/Remodel	Restaurant/Convenience Store: 6,200	Convenience Market @ Gas Station	square feet	52	35	63	9100-9200 Old Redwood Highway	2	Y
	Gas Station: 3,500	Auto Service*	square feet	11	7		9100-9200 Old Redwood Highway	2	Y
	Demolition of existing convenience store (1161 sf)	Auto Service*	square feet	-5	-3		9100-9200 Old Redwood Highway	2	N/A
McClelland Hotel	Hotel: 98	Hotel (Suburban)	occupied rooms (assuming 68% occupancy rate)	118	80	484	Civic Center (across from Town Green)	2	Y
Civic Center	Spa: 3,000	Health/Fitness Club	square feet	16	11			3	Y
	Ballroom: 8,400	Convention Center	square feet	140	95			3	Y
	Multipurpose Pavilion: 5,750	Community/Recreation Center	square feet	25	17			3	Y
	Conference Room: 2,550	Convention Center	square feet	42	29			3	Y
	Multi-family: 80	Low to Mid Rise Apartment (Suburban)	dwelling units	98	67			3	N
	Restaurant: 13,600	Quality Restaurant	square feet	240	163			3	Y

Project Name	Land Use Change(s)	ITE Land Use Code	Units	ITE Unshared Parking Demand (spaces)	Shared Parking Demand (spaces)	Parking Provided	Location	Zone	Included in Shared Supply?
	Bar: 4,125	Sit-Down Restaurant (Bar)	square feet	59	40			3	Y
	Café: 3,300	Bakery/Café (w/out Drive-thru)	square feet	47	32			3	Y
	Retail: 10,255	Shopping Center	square feet	32	22			3	Y
	Town Hall: 25,000	Government Office	square feet	80	54			3	Y
	Library: 10,400	Library (Suburban)	square feet	35	24			3	Y
	Demolition of Windsor fuel industrial site (44,341)	Manufacturing	square feet	-45	-31	-189	Civic Center (across from Town Green)	3	N/A
	Demolition of old school district office (11,136)	Government Office	square feet	-36	-24			3	N/A
	Demolition of old library (7,572)	Library (Suburban)	square feet	-26	-18			3	N/A
	Demolition of old town hall (5,280)	Government Office	square feet	-17	-12			3	N/A
	Demolition of police facility (10,643)	Government Office	square feet	-34	-23			3	N/A
	Demolition of Huerta Gym (10,295)	Community/Recreation Center	square feet	-44	-30			3	N/A
Mill Creek (formerly "Windsor Mill")	Multi-family: 360	Low to Mid Rise Apartment (Suburban)	dwelling units	443	301	672	8703-8777 Bell Road	1	N
Vintage Oaks on the Town Green (formerly Bell Village Residential Revisions)	Multi-family: 387	Low to Mid Rise Apartment (Suburban)	dwelling units	476	374	890	9290 Old Redwood Highway	3	N

Project Name	Land Use Change(s)	ITE Land Use Code	Units	ITE Unshared Parking Demand (spaces)	Shared Parking Demand (spaces)	Parking Provided	Location	Zone	Included in Shared Supply?
Richardson Street Mixed-Use	Multi-family: 30	Low to Mid Rise Apartment (Suburban)	dwelling units	37	25	70	Old Redwood Highway & Richardson Street (north of McDonalds)	2	N
	Retail: 4,200	Shopping Center	square feet	13	9				Y
Windsor SMART station	Forecast boardings: 681	Passenger Terminal	boardings/day	301	205	34	Windsor Road/Emily Rose Circle	1	Y
Net New Parking Demand/Supply				**2,169**	**1,525**	**2,175**			
Elimination of Restricted New Residential Spaces				**--**		**-1,630**			
Total Future Parking Supply in Total Study Area						**1,365**			

The profile of all parking demand, if strictly estimated by ITE standards, is shown in **Figure 67.** The demand under this Fully Unshared Demand Scenario would total 3,847, a figure far exceeding Future Parking Supply.

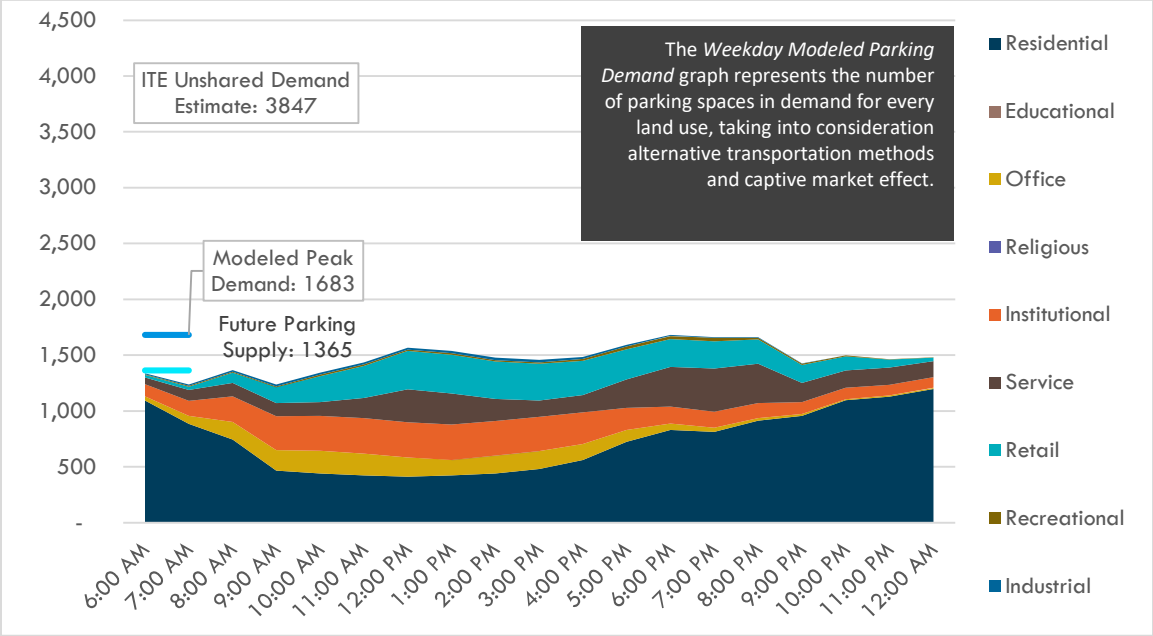
Figure 67 Future ITE Parking Standards (Fully Unshared Demand Scenario) – Total Study Area, Weekday



When modelling the first shared scenario for all land uses in Downtown Windsor, peak demand is estimated at 1683 (

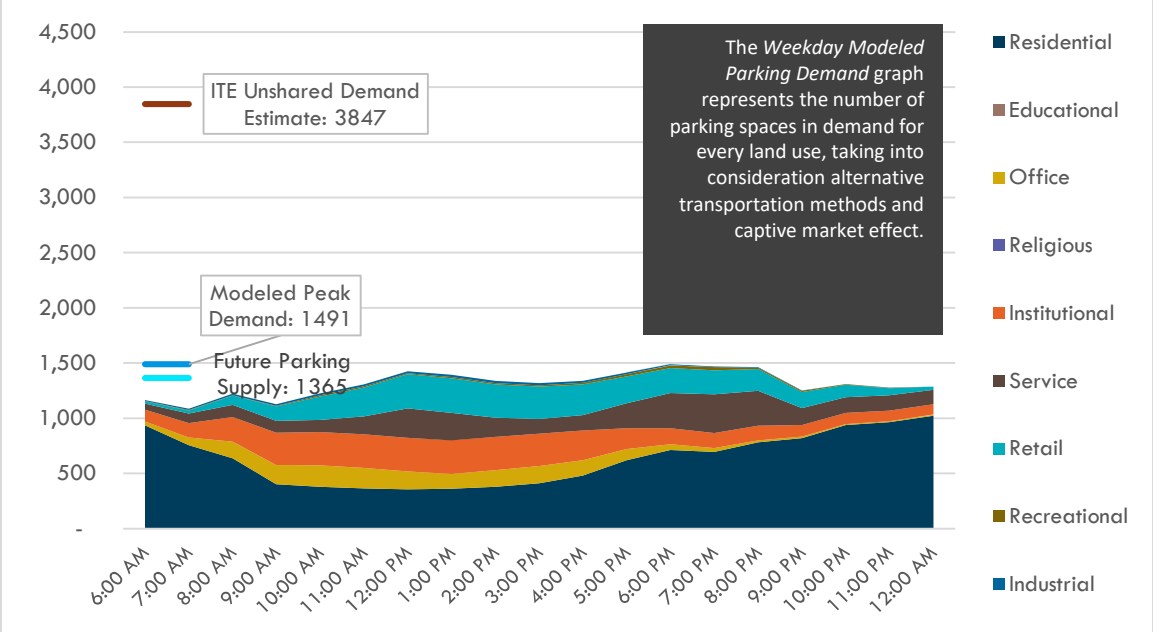
Figure 68).

Figure 68 Future Shared Scenario A: Modelled Peak Demand Estimates – Total Study Area, Weekday



When taking the outcomes of Scenario A, and then inserting a broad reduction of demand due to transportation demand management (TDM) programs, Scenario B presents a Total Study Area peak parking demand of 1,491 (Figure 69). Through the entire Downtown, a TDM program can reduce parking demand by 192 spaces, *bringing the net gap between supply and demand estimates to 126 spaces*.

Figure 69 Future Shared Scenario B: Modelled Peak Demand With TDM Estimates – Total Study Area, Weekday



Key Takeaway

Windsor should expect a growth in transit and non-driving access to the Downtown in the future, lessening parking demand for both events and business as usual. This is due to the imminent opening of the SMART station as well as the recent Windsor Hopper shuttle and complementary parking management policies that will ensure that the Town's valuable supply is used most efficiently. However, the modelled gap between supply and demand for Downtown Windsor may also be addressed with specific actions to open up restricted supply and unbundle residential parking, along with TDM programs.

Zone 1

When taking the existing land use in Zone 1 and adding the following anticipated developments in the pipeline for Zone 1 (Figure 70), the parking supply would total 434. This Future Parking Supply figure, for modelling purposes, does not include the 152 currently restricted spaces and 673 future residential spaces in Zone 1.

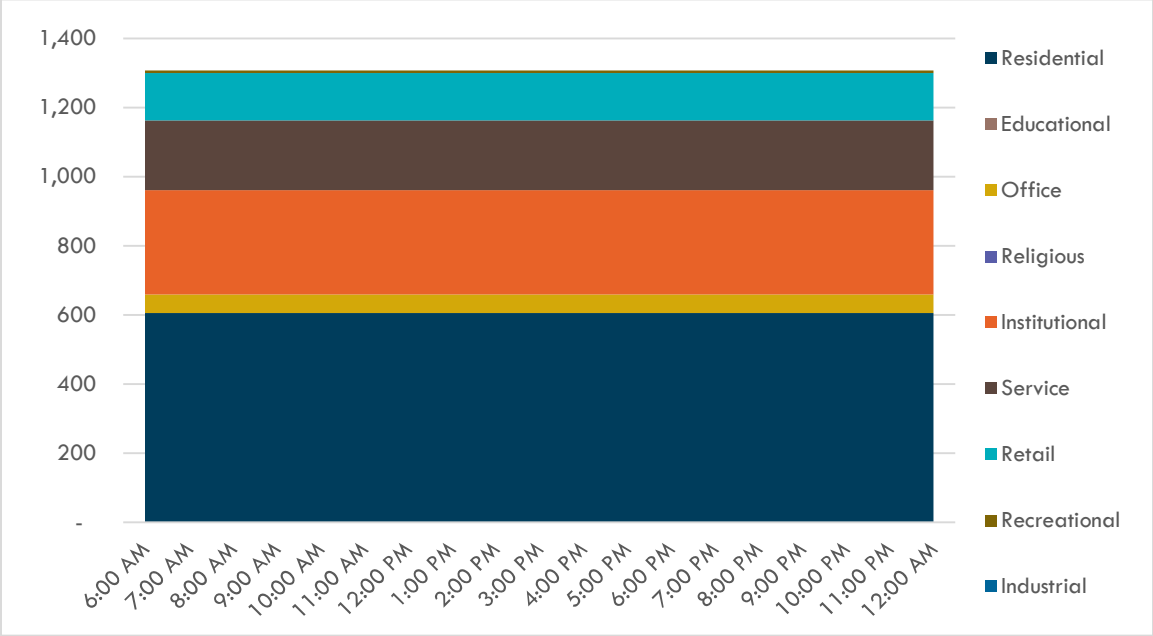
Figure 70 New Land Uses: Zone 1

Project Name	Land Use Change(s)	ITE Land Use Code	Units	ITE Unshared Parking Demand (spaces)	Shared Parking Demand (spaces)	Parking Provided	Location
Existing Parking Demand/Supply						**554**	
Elimination of Currently Restricted Spaces						**-152**	
Mill Creek (formerly "Windsor Mill")	Multi-family: 360	Low to Mid Rise Apartment (Suburban)	dwelling units	443	301	672	8703-8777 Bell Road
Windsor SMART station	Forecast boardings: 681	Passenger Terminal	boardings/day	301	205	34	Windsor Road/Emily Rose Circle
Net New Parking Demand/Supply				**744**	**506**	**706**	
Elimination of Restricted New Residential Spaces				**--**	**--**	**-672**	
Total Future Parking Supply in Zone 1						**434**	

The profile of all parking demand, if strictly estimated by ITE unshared standards is shown in

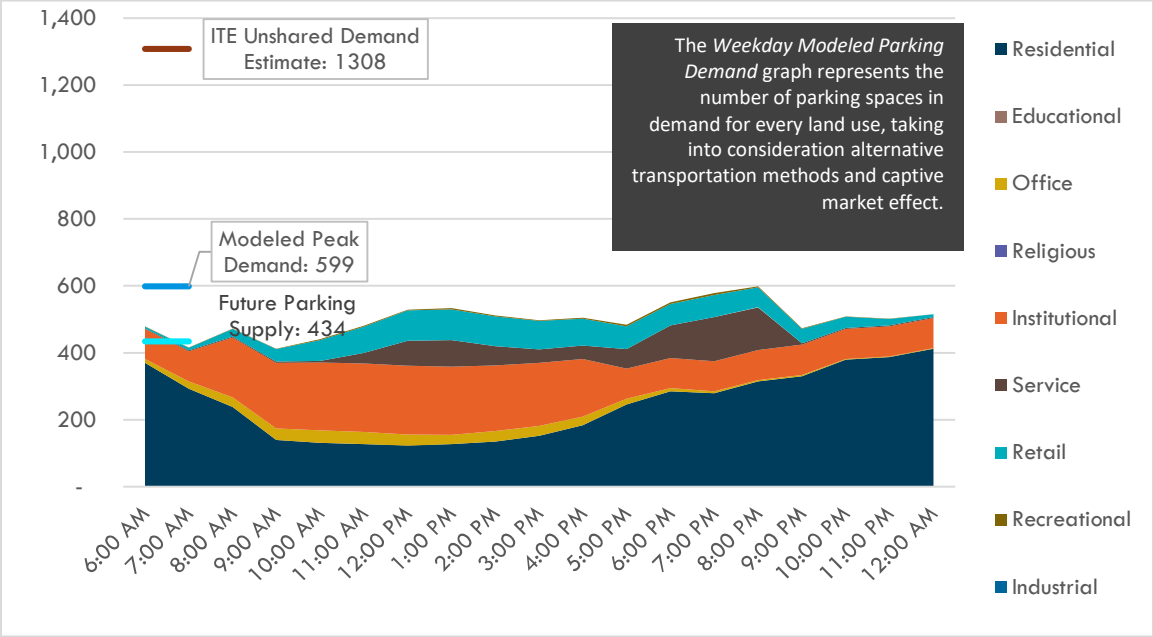
Figure 71. The demand under this Fully Unshared Demand Scenario would total 1,308, a figure far exceeding Future Parking Supply.

Figure 71 Future ITE Parking Standards (Fully Unshared Demand Scenario) – Zone 1, Weekday



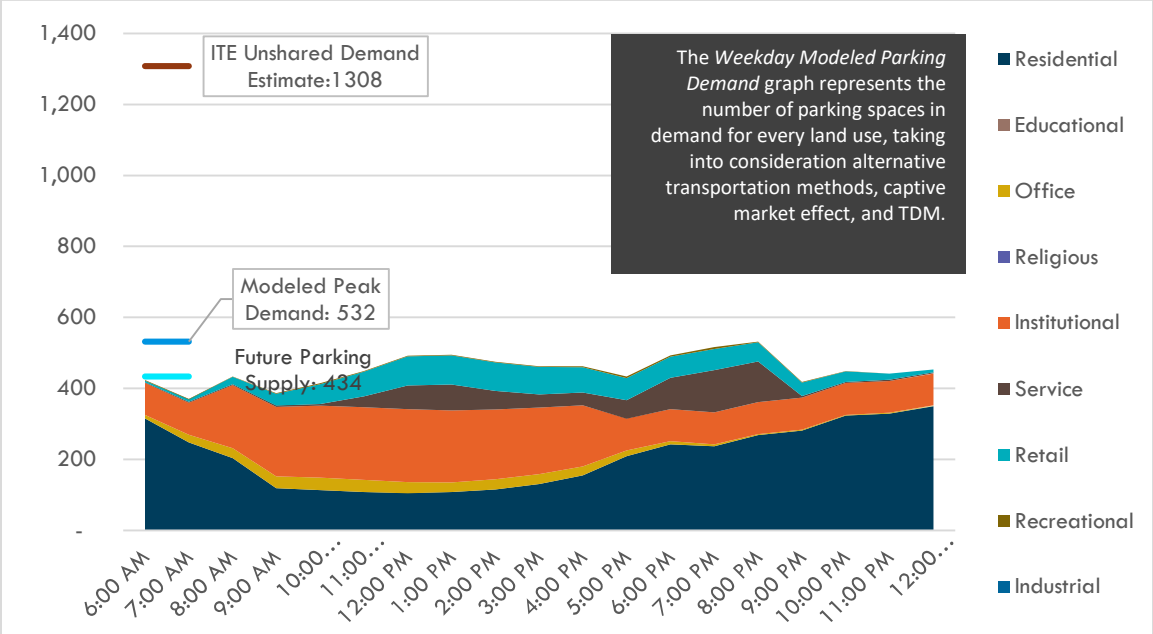
Peak demand under shared scenarios fall significantly from unshared ITE rates significantly, but still sit above the Future Parking Supply figure. In Scenario A, shared demand totals 599 spaces (Figure 72).

Figure 72 Future Shared Scenario A: Modelled Peak Demand Estimates – Zone 1, Weekday



Future reductions in demand due to TDM (the difference in demand between Scenarios A and B, pictured in Figure 73) total 67 spaces.

Figure 73 Future Shared Scenario B: Modelled Peak Demand Estimates – Zone 1, Weekday



Key Takeaway

If demand from the developments analyzed in the shared scenarios generated by the new 360 residential units at Mill Creek were not included in the modelled peak demand calculation, the "Modeled Peak Demand" for Zone 1 under Scenario B would change from 532 (as seen in Figure 73) would decrease to 416 spaces, which is actually less than future supply in the Zone. *This underscores the importance of TDM programs in Zone 1, which would make a significant impact in the supply-demand balance*. Windsor should expect a growth in transit and non-driving access to the Downtown in the future, lessening parking demand for both events and business as usual. This is due to the imminent opening of the SMART station as well as the recent Windsor Hopper shuttle and complementary parking management policies that will ensure that the Town's valuable supply is used most efficiently.

Zone 2

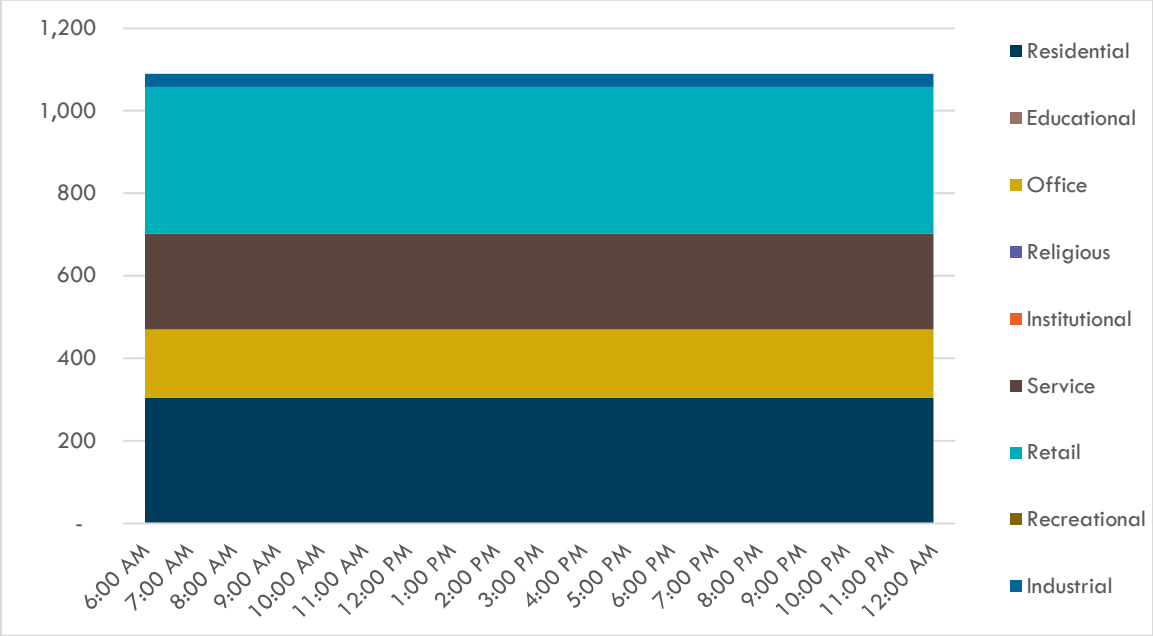
When taking the existing land use in Zone 2 and adding the following anticipated developments in the pipeline for Zone 2 (Figure 74), the parking supply would total 512. This Future Parking Supply figure, for modelling purposes, does not include the 835 currently restricted spaces and 30 future residential spaces in Zone 2.

Figure 74 New Land Uses: Zone 2

Project Name	Land Use Change(s)	ITE Land Use Code	Units	ITE Unshared Parking Demand (spaces)	Shared Parking Demand (spaces)	Parking Provided	Location
Existing Parking Demand/Supply						**1094**	
Elimination of Currently Restricted Spaces						**-835**	
Chevron Expansion/Remodel	Restaurant/Convenience Store: 6,200	Convenience Market @ Gas Station	square feet	52	35	63	9100-9200 Old Redwood Highway
Chevron Expansion/Remodel	Gas Station: 3,500	Auto Service*	square feet	11	7		
Chevron Expansion/Remodel	Car Wash: 2,314	Auto Service*	square feet	10	7		
Chevron Expansion/Remodel	Demolition of existing convenience store (1161 sf)	Auto Service*	square feet	-5	-3		
McClelland Hotel	Hotel: 104	Hotel (Suburban)	occupied rooms (assuming 68% occupancy rate)	118	80	151	McClelland & Market
Richardson Street Mixed-Use	Multi-family: 30	Low to Mid Rise Apartment (Suburban)	dwelling units	37	25	70	Old Redwood Highway & Richardson Street (north of McDonalds)
Richardson Street Mixed-Use	Retail: 4,200	Shopping Center	square feet	13	9		
Net New Parking Demand/Supply				**236**	**160**	**284**	
Elimination of Restricted New Residential Spaces				**--**	**--**	**-30**	
Total Future Parking Supply in Zone 2				**--**	**--**	**513**	

If all parking demand were strictly estimated by ITE unshared standards (Figure 75), the demand would total 1,090, far exceeding Future Parking Supply.

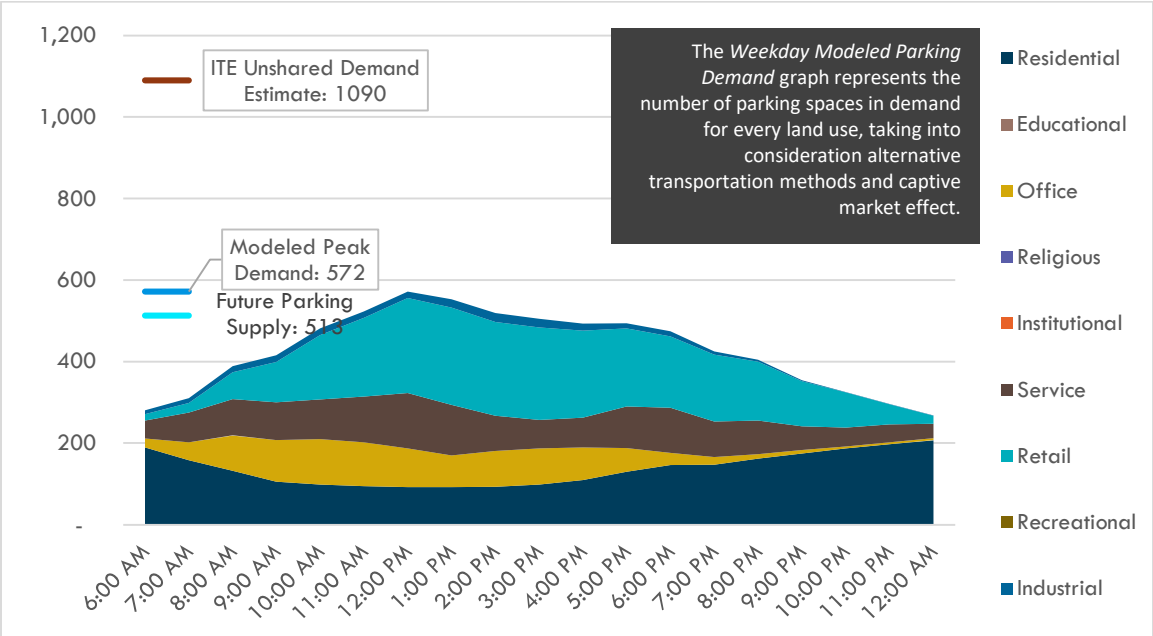
Figure 75 Future ITE Parking Standards (Fully Unshared Demand Scenario) – Zone 2, Weekday



In Scenario A, Modelled Peak demand totals 572 (

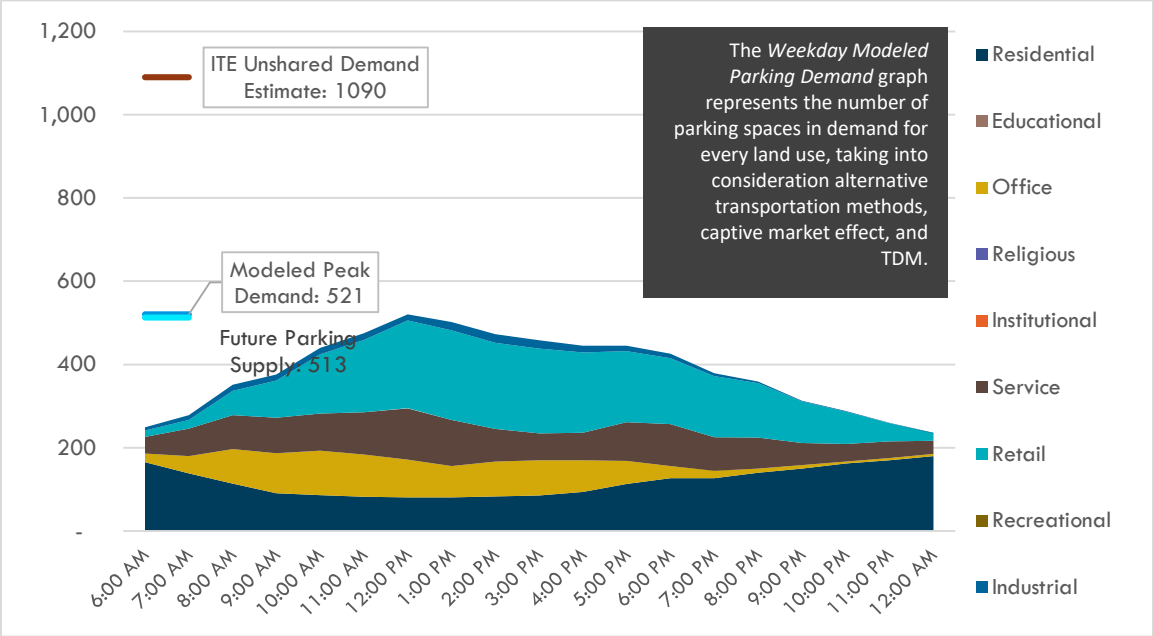
Figure 76), which also exceeds Future Parking Supply.

Figure 76 Future Shared Scenario A: Modelled Peak Demand Estimates – Zone 2, Weekday



Future reductions in demand due to TDM (the difference in demand between Scenarios A and B, pictured in Figure 77) total 51 spaces, *bringing modelled peak to demand even closer to Future Parking Supply*.

Figure 77 Future Shared Scenario B: Modelled Peak Demand Estimates – Zone 2, Weekday



Key Takeaway

It should be noted that there is a supply of 865 spaces – about 150% of the Future Parking Supply, which is technically within Zone 2, but not available for the general public to use. *Opening some existing supply to the general public in Zone 2 could close the gap between supply and demand in future scenarios*. Additional measures to consider are creative transportation demand management (TDM) incentives, or encouragement of sharing spaces specifically during special events.

Zone 3

When taking the existing land use in Zone 1 and adding the following anticipated developments in the pipeline for Zone 3 (Figure 78), the parking supply would total 421. This Future Parking Supply figure, for modelling purposes, does not include the 21 currently restricted spaces in Zone 3, as well as 890 future residential spaces for Vintage Oaks, and 154 residential spaces based on Scheme "C" of the Civic Center plan.

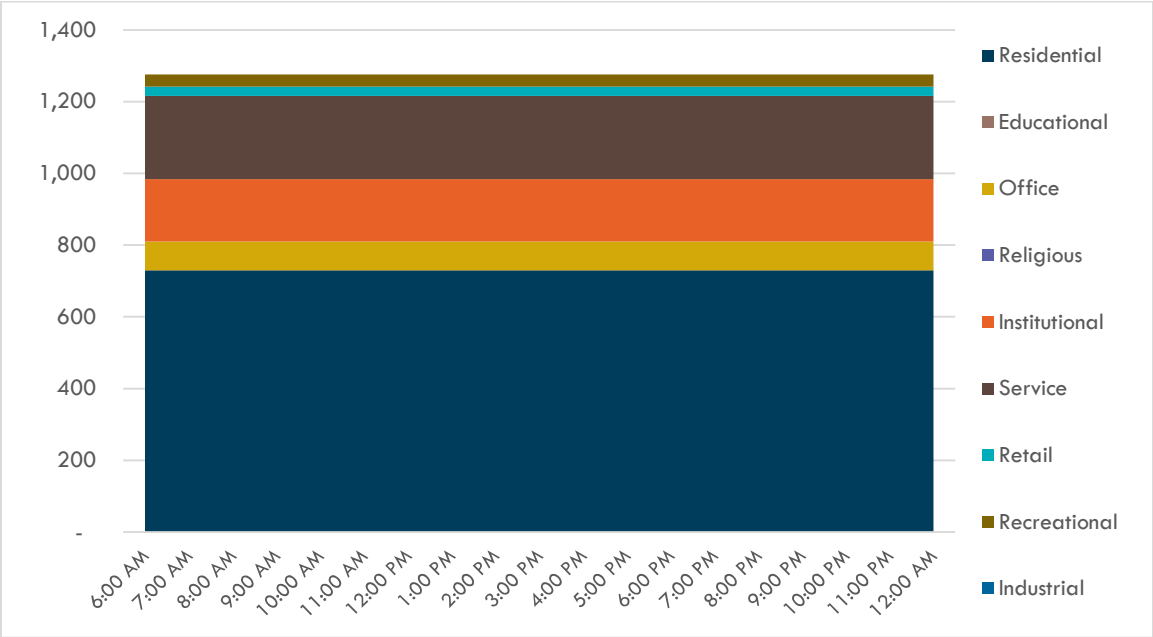
Figure 78 Future Conditions: New Land Uses: Zone 3

Project Name	Land Use Change(s)	ITE Land Use Code	Units	ITE Unshared Parking Demand (spaces)	Shared Parking Demand (spaces)	Parking Provided	Location
Existing Parking Demand/Supply						**301**	
Elimination of Currently Restricted Spaces						**-21**	
Civic Center	Hotel: 84	Hotel (Suburban)	occupied rooms (assuming 68% occupancy rate)	101	69	484	Civic Center (across from Town Green)
Civic Center	Spa: 3,000	Health/Fitness Club	square feet	16	11		
Civic Center	Ballroom: 8,400	Convention Center	square feet	140	95		
Civic Center	Multipurpose Pavilion: 5,750	Community/Recreation Center	square feet	25	17		
Civic Center	Conference Room: 2,550	Convention Center	square feet	42	29		
Civic Center	Multi-family: 80	Low to Mid Rise Apartment (Suburban)	dwelling units	98	67		
Civic Center	Restaurant: 13,600	Quality Restaurant	square feet	240	163		
Civic Center	Bar: 4,125	Sit-Down Restaurant (Bar)	square feet	59	40		
Civic Center	Café: 3,300	Bakery/Café (w/out Drive-thru)	square feet	47	32		
Civic Center	Retail: 10,255	Shopping Center	square feet	32	22		
Civic Center	Town Hall: 25,000	Government Office	square feet	80	54		
Civic Center	Library: 10,400	Library (Suburban)	square feet	35	24		
Civic Center	Demolition of Windsor fuel industrial site (44,341)	Manufacturing	square feet	-45	-31	-189	
Civic Center	Demolition of old school district office (11,136)	Government Office	square feet	-36	-24		
Civic Center	Demolition of old library (7,572)	Library (Suburban)	square feet	-26	-18		
Civic Center	Demolition of old town hall (5,280)	Government Office	square feet	-17	-12		
Civic Center	Demolition of police facility (10,643)	Government Office	square feet	-34	-23		
Civic Center	Demolition of Huerta Gym (10,295)	Community/Recreation Center	square feet	-44	-30		
Vintage Oaks on the Town Green (formerly Bell Village	Multi-family: 387	Low to Mid Rise Apartment (Suburban)	dwelling units	476	374	890	9290 Old Redwood Highway

Residential Revisions)							
Net New Parking Demand/Supply				**1,189**	**859**	**1,185**	
Elimination of Restricted New Residential Spaces						**-1,044**	
Total Future Parking Supply in Zone 3						**421**	

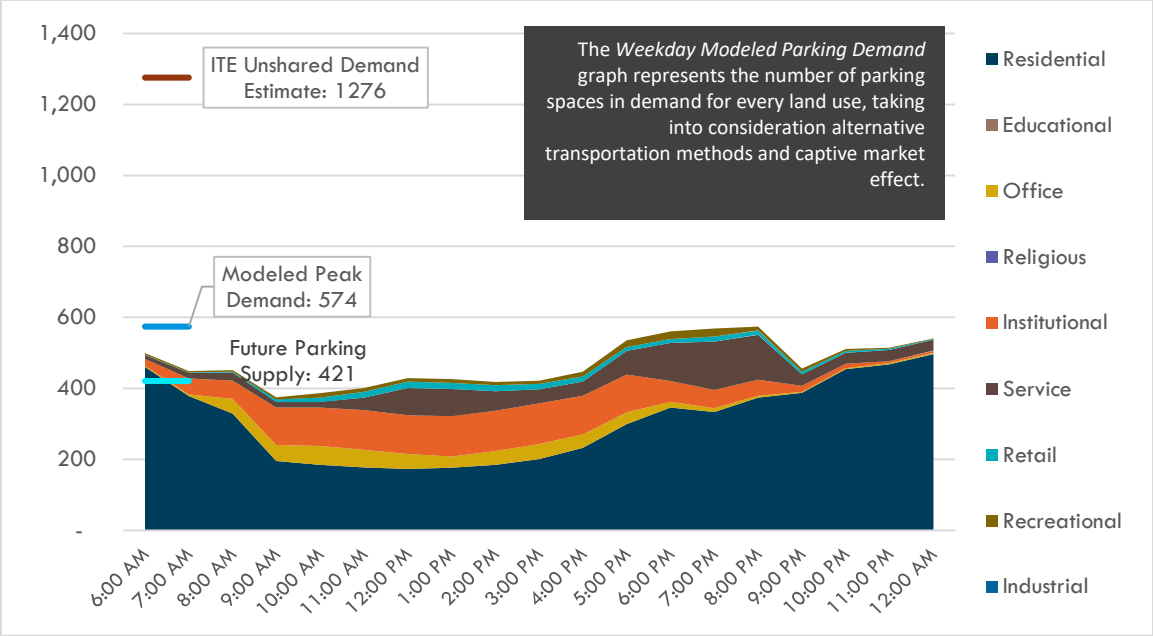
If all parking demand were strictly estimated by ITE unshared standards (Figure 79), the demand in Zone 3 would total 1,276, far exceeding Future Parking Supply.

Figure 79 Future ITE Parking Standards (Fully Unshared Demand Scenario) – Zone 3, Weekday



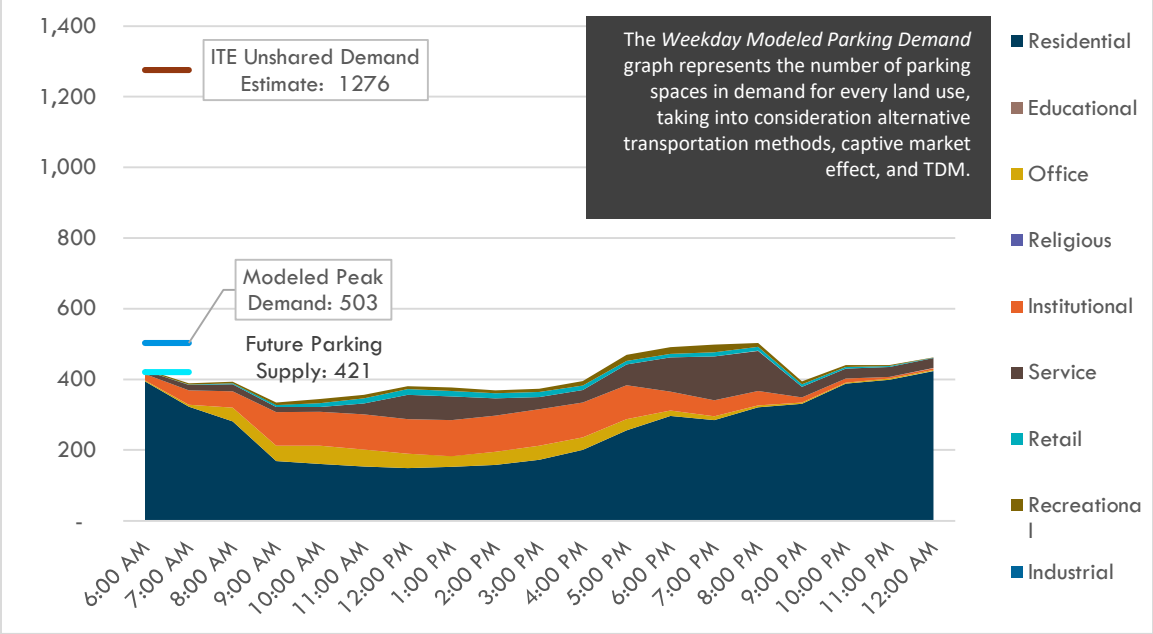
In Zone 3, peak demand under shared Scenario A is also higher than the Future Parking Supply (Figure 80). However, if all residential spaces for the Civic Center were to be unbundled and unrestricted, then the Future Supply would increase to be barely eclipsed by peak demand under shared Scenario A.

Figure 80 Future Shared Scenario A: Modelled Peak Demand Estimates – Zone 3, Weekday



Through the application of TDM reductions, Scenario B (Figure 81) shows that parking demand can be reduced by 71 spaces, which is the largest reduction in any of the zones.

Figure 81 Future Shared Scenario B: Modelled Peak Demand Estimates – Zone 3, Weekday



Key Takeaway

Zone 3 has the greatest difference between Modeled Peak Demand with TDM and the Future Parking Supply. Like the other Zones, *unless current and future supplies become unrestricted, Zone 3 may be overwhelmed with public parking demand.*

SUMMARY OF FUTURE MODELLED DEMAND

The following figure is a summary of the future model outputs. Like all model results in this memo, these should be seen as insights into future conditions, as well as the potential differences in strategic approaches for each zone, as well as the Total Study Area.

Figure 82 Initial Summary of Future Parking Supply and Demand Findings

Category of Analyses	Analysis	Total Study Area	Zone 1	Zone 2	Zone 3
	Notable Landmark	Downtown	West of Market Street/SMART Station	East of Market Street/Bell Village Commercial Center	Joe Rodota Way/Civic Center Area
Future Modeled Inventory	**Net Additional Parking Supply Provided from New Development**	2,175	706	284	1185
	Number of Future Spaces Which Will Be Restricted in Model	1,630	672	30	890
All Scenarios	**Future Parking Supply**	1,365	434	513	421
	Future Parking Supply If Restricted Spaces Were Included	*2,990*	*1106*	*543*	*1465*
	Future ITE Standards (Fully Unshared Demand Scenario)	3,847	1308	1090	1276
Scenario A	**Modeled Peak Demand**	1,683	599	572	574
	Difference Between Supply and Demand Estimates	-318	-165	-59	-153
Scenario B	**Modeled Peak Demand With TDM**	1,491	532	521	503
	Difference Between Supply and Demand Estimates	-192	-98	-8	-82

Note: Total Study Area outputs are calculated as a whole single entity, and thus modelled outputs may not necessarily be a sum of the three zones.

SUMMARY

- With current code limitations in place on shared parking supply for future development Downtown Windsor (1630 total spaces), there is an anticipated deficit from approximately 190 to 320 parking spaces depending upon the scenario (with or without TDM).
  - If no policy/program intervention is made to incentivize trip reduction, demand in all zones may exceed available supply.
  - If no policy/program intervention is made to open up restricted parking supplies to become available for the general public, demand in Zone 1 and 3 may spill over into Zone 2, as it has the lowest difference between Future Parking Supply and Scenario B demand. It also generates less parking demand than the other zones.
- Windsor should expect a growth in transit and non-driving access to the Downtown in the future, lessening parking demand for both events and business as usual. This is due to the imminent opening of the SMART station, a current trend of Sonoma County municipalities funding fare-free circulator transit service (e.g., Healdsburg and Sebastopol), and regional and local interest in creating partnerships to increase transit service delivery (either via coordinating underutilized assets or developing "flex" microtransit routes). However, complementary parking management policies will be necessary to ensure that parking demand does not spillover during times of peak demand.
- Event parking has proven to be highly taxing on Town-wide parking supply, particularly on-street, creating severe local congestion and limiting access to local businesses. However, there is still significant untapped unshared supply during events as well as nearby satellite parking. Rather than invest in a capital project that will compound local traffic congestion, events are most likely to be solved via an event management solution. This includes the opening of the future SMART train station, expansion of the event shuttle, the Hopper shuttle, bike valet and leasing of private parking among other incentives.