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Chittenden County Regional Planning Commission & City of Winooski

PARKING INVENTORY, ANALYSIS, AND MANAGEMENT PLAN

Scope of Work | October 22, 2020

PREPARED FOR:
CHITTENDEN COUNTY REGIONAL PLANNING COMMISSION & CITY OF WINOOSKI

SUBMITTED BY:
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IN COOPERATION WITH:
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CONTENTS

LIST OF FIGURES

1.0 PROJECT UNDERSTANDING AND APPROACH

1.1 PROJECT TEAM AND MANAGEMENT

Jonathan Slason, PE will provide overall project management for this project and be the primary point of contact for the consultant team. RSG has brought in DESMAN Design Management Consulting who has a long and successful legacy in conducting all aspects of parking studies across the country, and here in Vermont. DESMAN will be assisting on specific aspects of the scope providing peer review on technical modeling tasks and will lead the tasks focused on policies and regulation.

RSG will publicly represent this project and will be facilitating and leading any public meetings and stakeholder involvement.

1.2 BACKGROUND

The City of Winooski is only 1.43 square miles in size and has always played an outsized role within Chittenden County as an important nexus between Burlington, Colchester, Essex and points north and east. Over the past four years the City has completed a comprehensive transportation plan and a downtown parking management plan. The city has also adopted a Form Based Code form of land use regulation which focuses growth along the gateways to the city.

The stress of serving a significant degree of through traffic comes with the benefit of proximity to some of the largest employers in Chittenden County as well as serving as a key transit hub – which provide residents and employees alike, a diverse set of travel options. Combined with the land use changes along the gateways there is an increasing pressure on the limited curb space and other surface space that can be devoted to parking.

The genesis of this parking management plan stems from the emphasis on the gateways for additional land use intensification but also that these gateways have enormous through traffic pressure and limited opportunities to devote limited curb space.

Evaluating the need for parking is balanced with the provision of alternatives – providing ways to travel without requiring a vehicle. Travel mode share for workers who live in Winooski already shows a relatively strong public transit, walking, and carpooling means of travel.

Mode Choice	Percent
Drive Alone	65.35%
Carpool	8.47%
Public Transit	8.83%
Bike	1.46%
Walked	9.79%
Worked at home	6.00%
other	0.11%

Source: 2017 American Community Survey 5-year

Although residents and employees in Winooski do commute by alternatives to the private vehicle, many households still own vehicles for other day to day or infrequent needs, which still require parking. Finding enough space and managing that space is central to any city's successful management of limited space along a curb, especially in a dense place as Winooski. It is evident that the rejuvenation of downtown has been in part supported by sufficient amount parking.

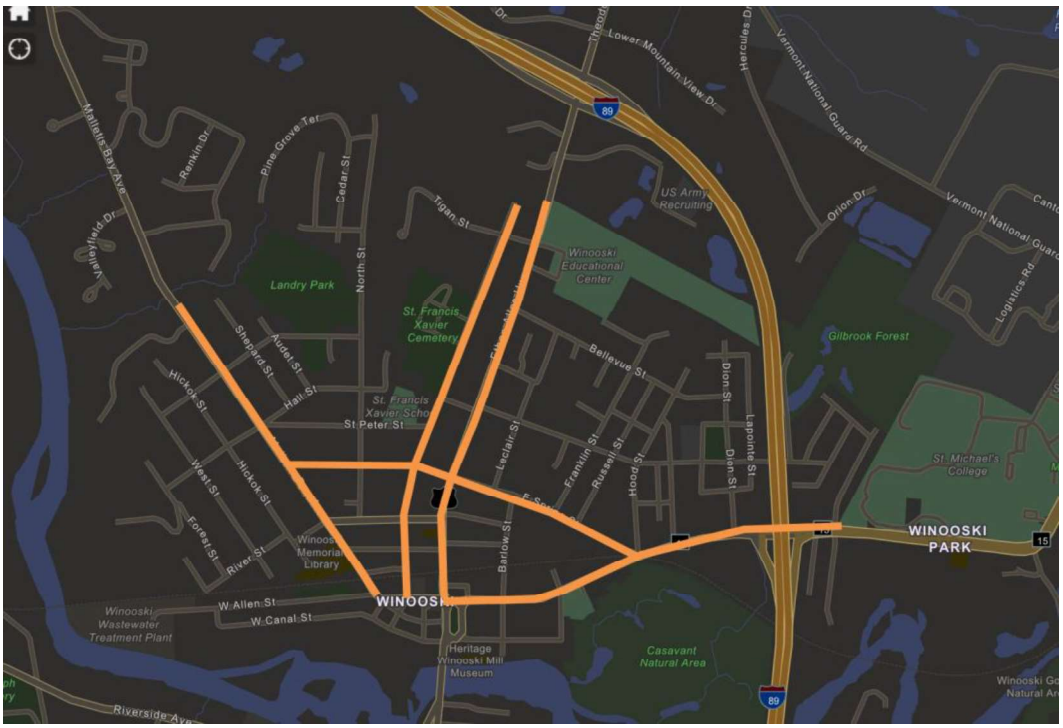
Since 2017 the city has completed a downtown parking management plan, a citywide transportation plan, obtained funding and finished design for a substantial upgrade to Main Street, completed a scoping study for East Allen Street, and has nearly completed the creation of a transportation impact fee ordinance to fund local transportation projects.

1.3 PROJECT UNDERSTANDING

This scope of work includes a review of parking demand and supply within specific sections of the city, investigation and evaluation of various management strategies including enforcement, regulations, pay and fee structures, metering options, and subsequent revisions to ordinances and the land development regulations.

This parking study has a specific focus on the current and future parking demands along several streets in Winooski: Main Street, East Allen Street, Malletts Bay Avenue, Weaver Street, and Spring Street. The study area is intended to capture the areas of growing pressure between accommodating through traffic and accommodating the needs of the adjacent land use development. Including the city gateways is the emphasis, while other facilities may receive varying degrees of attention within the study – drawing from previous work as much as possible. It is noted that the City Garage and the future Abenaki Garage will not be the focus of this study.

FIGURE 1: PARKING STUDY AREA



source: RSG (basemap via ArcGIS Online)

To provide the city with meaningful and valuable data, the study area is intended to validate the degree to which specific land uses generate parking demand. The mix of land uses along the gateways provides a complex and comprehensive view on specific corridors, while adding some locations with more homogenous land uses will be valuable to provide confidence on the net generation of parking demand for those land uses. For example, the streets of Lapointe, St. Peter, and West should provide valuable insights on the parking generation of residential uses. This compares to some uses on the gateways where some locations will provide valuable parking demands associated with non-residential uses.

Obtaining land use specific parking generation rates is critically important to eventually building a parking model that will feed into forecasts. Additionally, the city can take a land use specific generation rate from this study and compare it with current zoning regulations for the provision of parking.

2.0 SCOPE OF WORK

2.1 PUBLIC ENGAGEMENT

Parking is a difficult and often a contentious topic. Cars are significant assets and finding a place to safely store and access them during periods of inactivity is important to anyone who owns one. In cities such as Winooski, which developed before the automobile, there are residential lots without dedicated off-street spaces for vehicles. Even newer developments are providing fewer spaces than in years past – in a dual response to the market with residents owning fewer vehicles or the city implementing progressive policies. Although there is some degree of market mentality – people should pay for a good, the history of providing publicly available curb space or even public off-street space, for the purposes of storing a private asset has skewed many a perspective. This perspective is important, especially once a 'public good' is priced, users will flock to a relatively less expensive option (i.e., nearby unregulated street parking).

Once available supply of parking is reduced at a specific user price (either through a market price or by its physical supply) then people look for options. This theory of generalized cost that any individual has a budget, either time or money, to spend on transportation and increasing the cost of options relative to other options, will make some options more attractive. Parking is one of the more complex pieces of transportation – as it is a physical asset (land, pavement, striping, etc.) that has value that has often not been priced up to the willingness to pay - creating a skewed demand. That demand is not only affected by the supply of parking, but also the ability to own a vehicle and generate the fundamental demand for the parking space. That is why parking demand rates are a function of the underlying land use, the socioeconomics of the population, and the pricing structures in place.

These challenges reinforce the need for a proactive and comprehensive public engagement process in this study. Given that the end result could be specific ordinance, enforcement, and land development regulation changes – this study will change the status quo – and we must be prepared.

The project team will support the City and the CCRPC in the public engagement process. A specific number of meetings, hearings, and presentations, as well as publicly available resources in advance of these meetings are part of this scope.

A tiered engagement strategy is used in this study. A two-tier approach that has proven successful on other regional projects:

1) Technical Committee will guide the Project Team's work. Comprised of the consultant team, City staff, and CCRPC staff, it will meet at least seven times during the course of the study at the outset of each task. The Technical Committee will also review technical outputs, provide comments and feedback, and review documentation prior to wider dissemination.
2) Advisory Committee: This committee will be conveyed and facilitated by City staff. This committee will review and comment on behalf of the wider Winooski community

throughout the duration of this project. The Committee is anticipated to be comprised of additional City staff, volunteer boards such as the Planning Commission or the Infrastructure Commission. Other parties could include developers and major land holders. It is expected that Eric Vorwald, Planning & Zoning Manager will be the point of contact for this study and the chair of the Advisory Committee.

2.2 PROJECT KICK OFF

The first task of the project will be to obtain community buy-in and support through a public kick off process. It is important to get the community to buy-in and understand how this study attempts to collect information about the intricacies and sensitivities around current and future parking needs and demands.

The first meeting of the Advisory Committee would summarize the tasks of the study, outline what we think are the goals for the study, review the study area, and start to initiate a grass-roots data collection effort. Specifically, off-street, private lots are of interest for a thorough analysis of parking demand, vehicle ownership, and potential management and enforcement topics.

Lastly, it is suggested that the CCRPC or City lead conversations with specific geographies and users to solicit issues, challenges, and opportunities to address parking challenges. Central to this effort is to compare how the observed conditions on the ground match the day-to-day users' perceptions of parking supply and demand.

2.3 IDENTIFY EXISTING PARKING SUPPLY

RSG will conduct a field audit to verify the number of striped and unstriped spaces along curb faces and estimate the number of off-street parking spaces are associated with the land uses along the study corridors. The Advisory Committee and other stakeholders all will be asked to contribute to the data collection process of estimating the locations and numbers of parking spaces.

The CCRPCs parking supply map in a GIS shapefile will be edited to reflect the supply and management of the observed parking spaces in Winooski within the geographic study area. Updating this 'source of truth' is an important aspect of this task. The GIS file will be used in the GIS Shared Parking tool in Task 2.4.

Deliverables
• Technical memorandum summarizing work carried out. Specifically, documented quantity of existing parking spaces, regulations, and other restrictions. • Presentation with findings, recommendations • Meeting(s) with City and CCRPC Staff

2.4 IDENTIFY EXISTING PARKING DEMAND

The estimate of parking demand is a thorny question, that requires a multiple step analysis. In order to forecast any future parking demands, a model is constructed (in this case the gold-standard Urban Land Institute Shared Parking model) and calibrated to local conditions. Once calibrated, the model can be used to evaluate the parking demands associated with various future land use changes. The following tasks are to be undertaken to build the model of existing parking demand:

> **Shared Parking** is most simply a parking facility that serves multiple destinations. It is nearly an intrinsic part of downtown settings with multiple land uses in close proximity.

Step A) Model the expected demand using a Shared Parking model. RSG will utilize the ULI Shared Parking manual and the GIS Shared Parking tool to create an estimate of expected parking demand based on the land uses proximate to the study streets and garages. It would be helpful to calibrate our approach with survey data, but an expected walking distance of less than 800 or 1000 feet between the space and the desired destination will be used.

The model incorporates the type of land use based on the ULI and ITE Land Use codes, the total amount of the land use, and with the GIS Shared Parking tool, the distance to parking locations. RSG assumes a certain amount of time to collect and assimilate the available data from the city or from other data sets such as the regional travel demand model. The quality of the land use data directly affects the quality of the parking model. The DUNNS commercial uses and CCRPC residential data will inform the base inputs. RSG will ask the city and the CCRPC to verify or provide a validated land use file for use in this project. The ULI Shared Parking approach first estimates parking demand for the land use during each month and each hour of the day. A shared parking approach is layered upon this core demand to account for the different patterns of parking demand associated with each individual land use to estimate a cumulative total demand for parking.

Step A includes the development of a shared parking model for each ‘zone’ of parking that geographically makes sense given an individual’s willingness to walk. The model will inform the peak times of the day and month for parking demand to inform the best time to collect observed data. The model estimates parking demand based on national data, with nearly 100% auto centric mode share – and therefore requires calibration through observed data.

It is acknowledged that the 2017 Parking Management study also developed a shared parking model built on the ULI data. This model was built around the downtown core land uses, specifically those using the city parking garage. While this study extends further away from the core, it will be important to understand how that resource is allocated and works in a ‘shared parking’ situation. The calibration of the 2017 model will be valuable as to how it can inform the GIS model which attempts to provide a more comprehensive and less prescriptive assessment on who uses the available parking supply. A review of this model will be carried out and any applicable factors will be transferred to this model.

The shared parking model can be shown to the stakeholders and the general public by showing the parking demands for a typical residential street and then how the total parking demand changes when a commercial office land use and retail uses open on the same street. These

simple examples can demonstrate the individual patterns of specific uses and how they overlap. This can increase trust and transparency.

Step B) Observe existing demand via occupancy. (Note: due to budgetary constraints, this effort is largely expected to be completed by CCRPC and Winooski staff) By counting the number of occupied (used) parking spaces, especially given most of them are free and unregulated, we can infer that the level of demand is what is being observed. It must be said however, that due to the pandemic, any observation at this point could be part of a short- to medium- disruption of typical activity. This has to be considered by the project team. Parking is never stable and parking models often require recalibration. A post-pandemic change is no different. The parking model, the land uses, the parking supply all remain valid – with the only new data being the amount of observed parking occurring. This simply is a recalibration effort of the tool which would require new parking observations and counts.

Step B could be enhanced with intercept surveys to summarize the land use(s) associated with the parking demand, any coordination with other travel modes, and expected duration. These surveys ask residents and patrons information about the model of travel, the location of the parking (if any) and the location of their local origin or destination. These types of surveys are critical in areas where people may visit one (or more) land use(s) but park a good distance away.

The consultant team will solicit additional input and observations from the community at large. Videos, notes, and observations can all be helpful to add additional resolution to the data and improve confidence in the parking demand. The consultant team will identify key times of the day and days during the week when these observations are most useful.

The occupancy of the spaces will be summarized and average percent utilized will be presented for the spaces for the observation time periods.

Step C) Calibrates the parking model with the observed data in Step B. This is done by adjusting for time of day and the total amount of parking demanded, which is a derived demand that includes modal availability, vehicle ownership, etc.

Deliverables
• Technical memorandum summarizing work carried out. Specifically, parking occupancy data, shared parking model • Presentation with findings, recommendations • Meetings with City and CCRPC staff • Advisory Committee #2 meeting

2.5 FUTURE CHANGES TO PARKING SUPPLY AND DEMAND

Winooski continues to be a dynamic city. There are anticipated changes in both the quantity and type of land use in the future as well as changes in the on-street and off-street parking supply. The model developed in Task 2.4 can be used to estimate the parking demands in the future with changes in both the supply of parking and the demand for parking.

This task accounts for the changes in the parking supply that will occur as part of several significant infrastructure investments being actioned by the city. These include: Main Street Revitalization Project, East Allen Street upgrades, the Abenaki parking garage downtown, and specific land use changes associated with the Form Based Code along the city gateways. The future land use development will be provided by the city with an estimate of the on-site parking to be supplied.

The creation of the shared parking model built and calibrated in Task 2.4 enables the project team and city to evaluate changes in land use inputs and supply very quickly. The model can be run quickly by changing a few of the supply and demand parameters.

The future conditions will be evaluated in the model with certain assumptions around shared parking or restricted parking. Areas of the city where the demand is likely to exceed the supply will be identified. The future demand for the parking areas identified in Task 2.3 existing conditions will be calculated.

Deliverables
• Technical memorandum summarizing work carried out • Presentation with findings, recommendations • Meeting with City and CCRPC staff

2.6 FUTURE OPPORTUNITIES FOR SHARED PARKING AND IMPROVING PARKING MANAGEMENT IN THE CITY

This task will evaluate and propose changes to:

1) Existing city parking management strategies including enforcement, pricing, payment mechanisms, modal integration, etc.
2) The city's Municipal Code and Land Development Regulations and other related standards such as those used by Public Works involving the design, maintenance, zoning requirements on number and management, of parking facilities.
3) Identifying how further support of multimodal transportation planning through either the local land use regulations or through financial or otherwise, supporting non-car modes could reduce parking demand. No specific modeling will be done for this task, but rather a review of how the application of transportation demand management during the subdivision or site plan process can be applied to reduce the total amount of vehicle parking necessary.
4) Other policies, regulations, or investments that the city can change to support shared parking in the city. Specific locations that would benefit from an official shared parking policy can be identified.

The project team will rely on literature review, previous work carried out by the team, and other professional input to guide the recommendations.

DESMAN will be a key partner in this task given their years of experience in the management of parking facilities including pricing and payment mechanisms, and land use regulations and zoning. They have advised cities around the country on how shared parking and other management methods can be improved to attain desired parking goals. RSG will be working directly with DESMAN on these tasks and will represent the work publicly and with the advisory committee.

The outputs from this task will include example regulatory policies from other jurisdictions and recommendations for the city to consider as the parking regulations are updated.

Deliverables
• Technical memorandum summarizing work carried out • Presentation with findings, recommendations • Meeting with City and CCRPC staff • Advisory Committee #3

2.7 DOCUMENTATION AND PRESENTATIONS

Each task of the project will have deliverables that will primarily consist of technical memos and presentations made to the advisory committee.

This task covers the development of draft and final reports to summarize the work carried out during the previous tasks. A final draft report will be produced that summarizes the overall project and submitted for review by the City and the CCRPC. A final report will be produced, and a presentation made to the Winooski City Council.

Deliverables
• Draft final report • Final report • Draft final presentation (a document) • Final presentation (presented to City Council) • Advisory Committee #4 • City County Meeting