RSG
the science of insight

DESMAN

Winooski Parking Management Plan

Project Kickoff Meeting – Advisory Committee

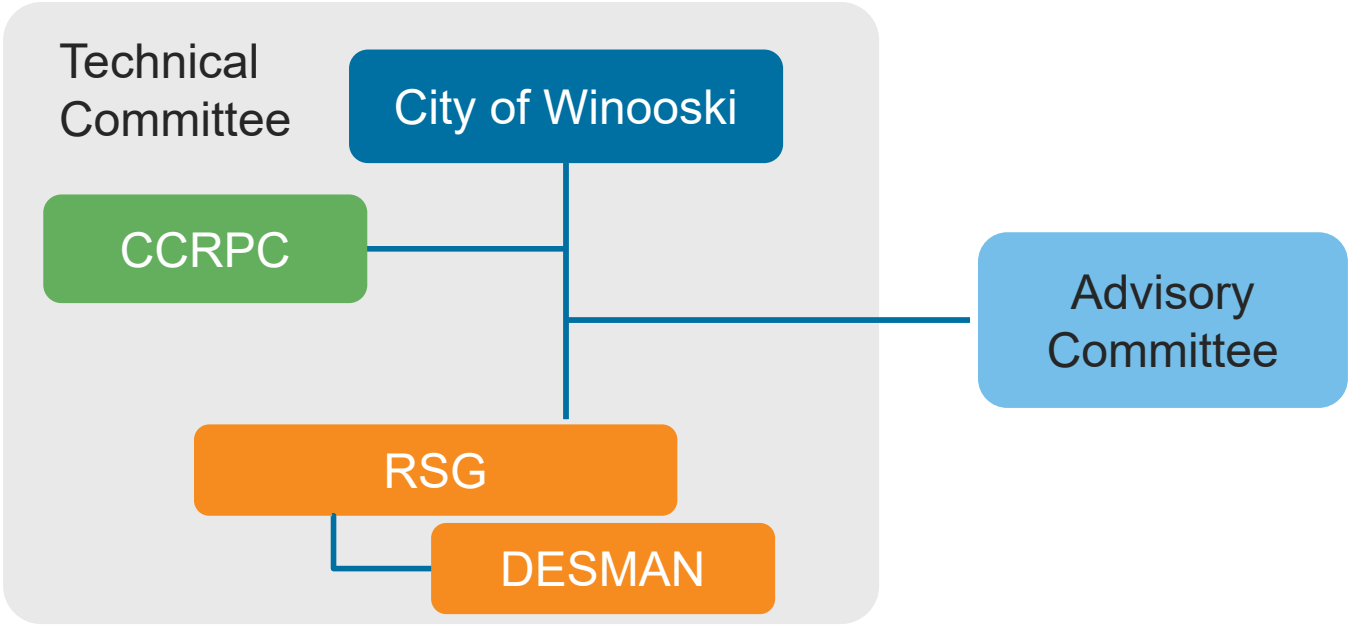
January 26, 2021

Welcome

- Introductions
- Project Team
- Role of the Advisory Committee

Study segments

Team Structure



City of Winooski

- Eric Vorwald
- Jon Rauscher
- Jessie Baker

CCRPC

- Jason Charest
- Chris Dubin
- Sai Sarepalli

RSG/DESMAN

- Jonathan Slason
- Corey Mack
- Aaron Lee
- Gabby Freeman
- Justin Culp
- Andy Hill [DESMAN]

Study Goal

Develop tools and analysis to inform how parking regulations can be changed to achieve city **transportation and land use objectives**.

These will include:

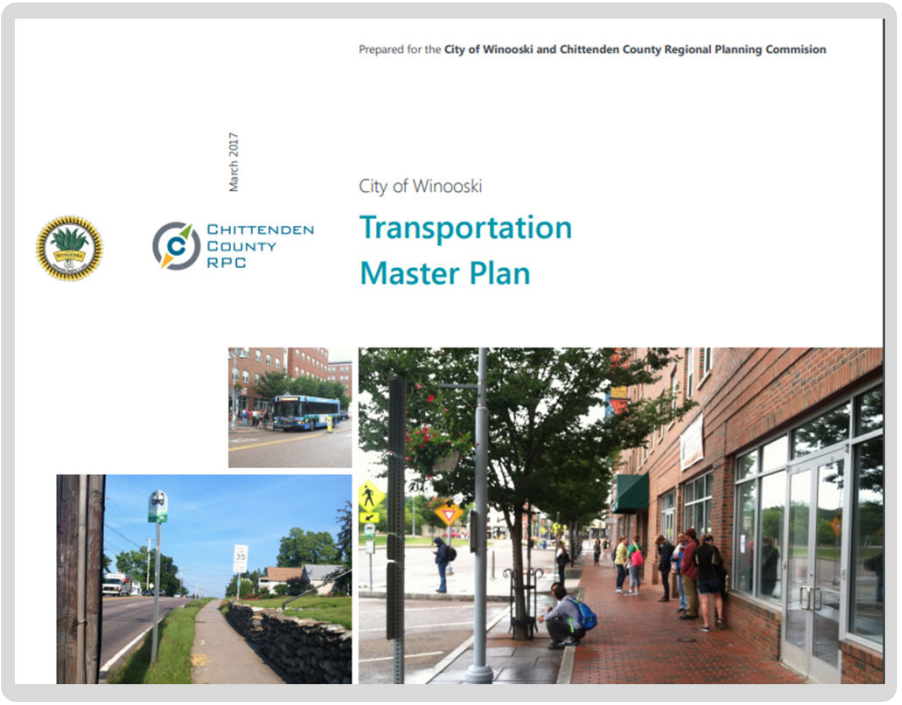
- How actual demand compares to parking supply based on observed conditions (data on parking occupancy on key streets)
- Local required minimum parking standards versus national averages
- Scenarios on future parking demand with changes in land use and policy
- Management strategies to respond to changes in land use growth and parking supply

Concepts of Parking and Scope of Work

- Parking concept and shared parking
- Shared Parking analysis methodology
- Parking supply
- Parking demand
- Modeling changes in land use, parking regulations, and transportation policies
- Outreach and public engagement
- Documentation
- Schedule

Other relevant work

Citywide transportation master plan



Downtown parking study focused on the city garage

Other relevant research on parking policies (example CarShareVT)

CarShare Vermont

Homes for People, Not Cars

Final Report for FY2020 UPWP Project
Prepared for the CCRPC, Fall 2020

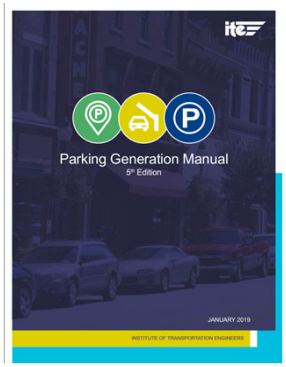
Developed a TDM and housing cost calculator to help identify how parking costs affect housing affordability

Vehicle Parking

The residents, guests, employees, and customers within any land use is expected to generate a certain amount of vehicle parking. That parking could be offered immediately adjacent to the land use or a point further away requiring a walk.

If individuals have other travel modes available to them that would decrease the amount of vehicle parking associated with that land use.

Best practice guides on the amount of parking that may be necessary to meet user demands come from: Institute of Transportation Engineers (ITE) and the Urban Land Institute (ULI)



(ITE) Traditional stand- alone land use parking demand. Ignores nearby land uses

(ULI) Parking generation rates and sensitivity for how a collection of land uses may lower net parking supply needed to meet individual land use demands

Shared Parking Concept

Benefiting from land uses that have different times and days of the week in peak parking demands

<u>Key times</u>

- **Weekday daytime**
- **Weekend daytime**
- **Weekend evening**

Shared Parking Methodology

Scope of Work

1. **Gather and review project data**:
   - Type and quantity of land uses
   - Local zoning standards
   - Existing conditions, pricing, local users and facilities
   - Mode splits, transit and TDM programs
   - Physical relationships between uses
   - Parking management strategies acceptable to various parties

Task 2.2, 2.3

2. **Select parking ratios (space/unit land use)**
   - Weekend and weekdays
   - Visitor/customer, employee/resident, and reserved

3. **Select factors and analyze differences in activity patterns**
   - Time of day
   - Monthly

Task 2.4

4. **Develop scenarios for critical parking needs periods**

5. **Adjust ratios for mode split, persons per car, captive markets**

6. **Calculate the required parking spaces for each scenario**

Task 2.5

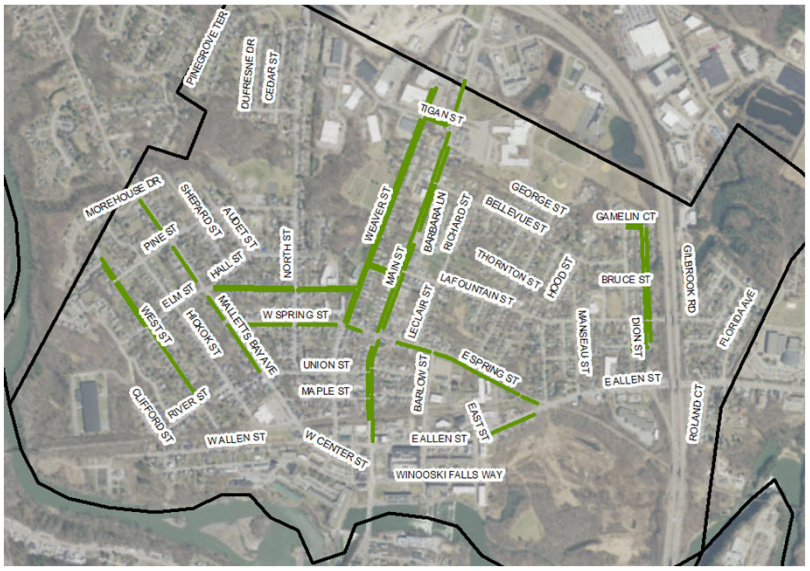
7. **Recommend parking plan**

Task 2.6

Parking Supply

On-Street

- Identify study streets
- Block by block number of spaces
- Restrictions noted
- Coded into GIS shapefile
- Currently 73 segments



Off-Street

- Address by address estimate of supply of parking
- Field work and desktop
- Create address based polygons in GIS
- Currently 515 parcels

Parking Demand

Decentralized data collection effort using a collection template.

Encourage more observations

On-Street

- **Block by block**
- **Time of day & date**
- **Counts of number of vehicles present**

Off-Street

- **Address by address observation of parking demand**
- **Time of day & date**
- **Surveys / outreach / self reporting?**

Demand vs Supply

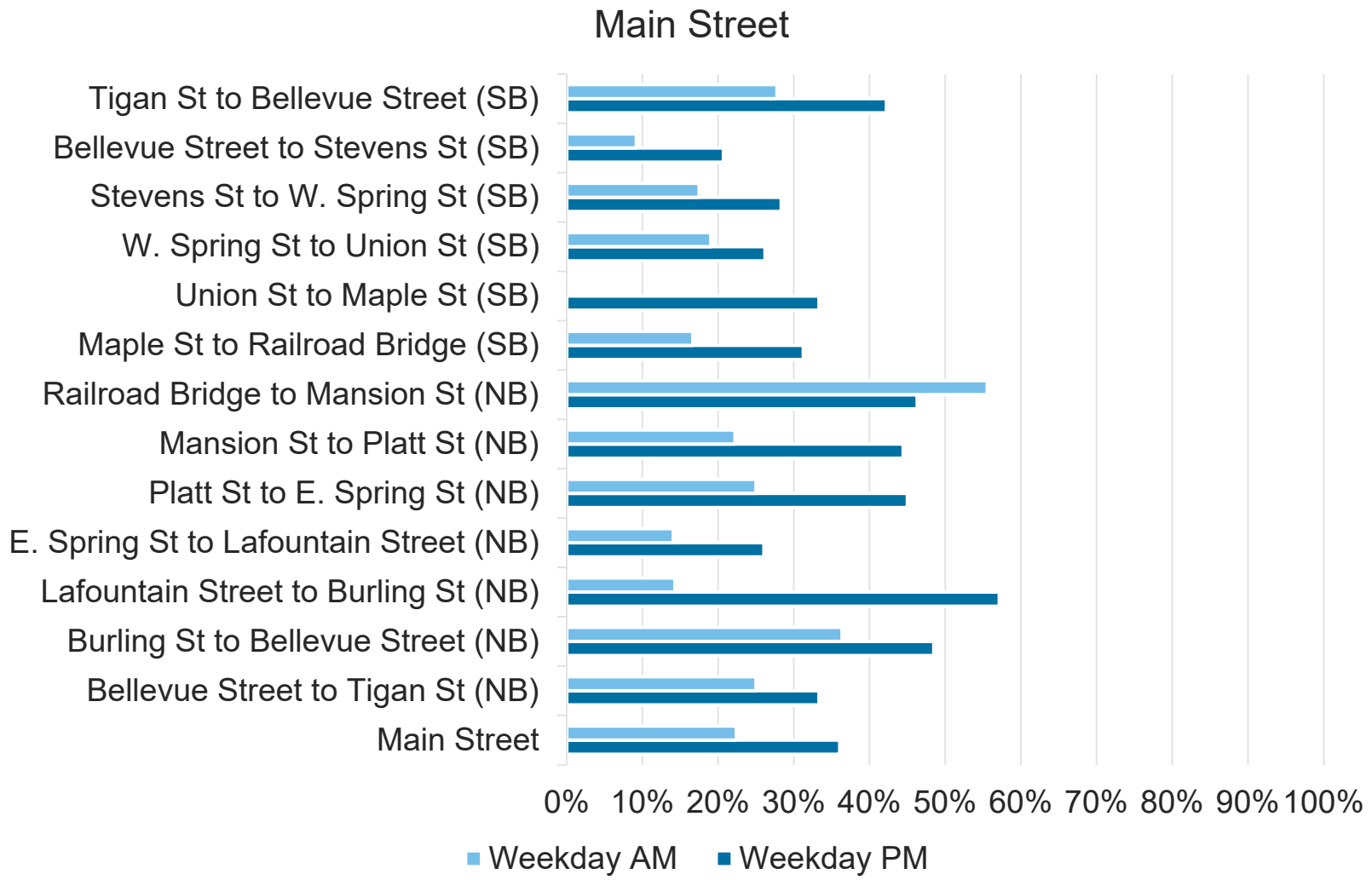
- Compare observed parking demand with the parking supply.
- Using the land uses in the study area estimate what the demand would be using national parking models.
- Calibrate the model to match the observed parking demand.

Scenarios

- Vary the land use in the future
- Vary the parking supply
- Vary both land use and parking supply
- Vary pricing and other regulations to lower parking demand

Data Collected So Far

Preliminary



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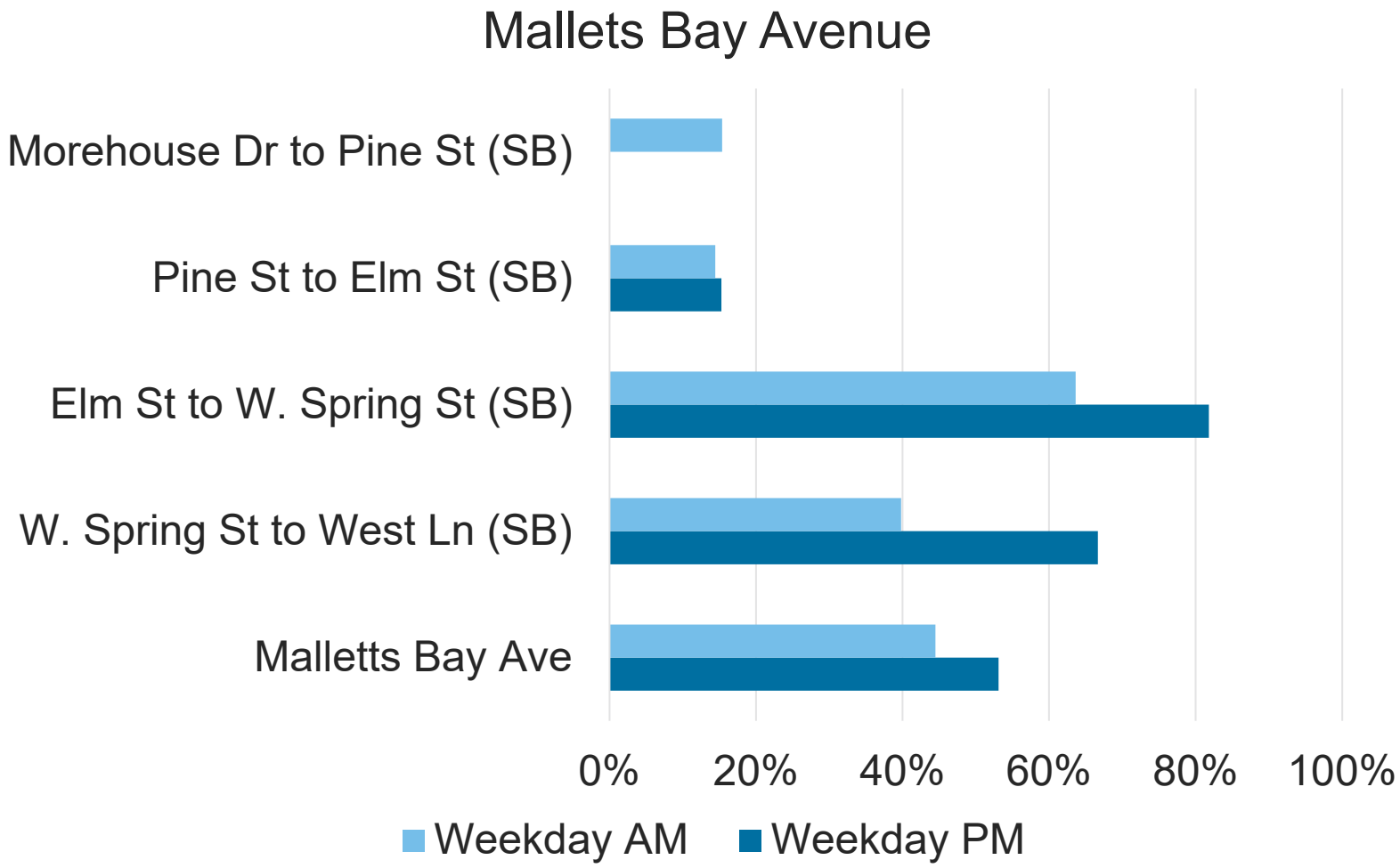

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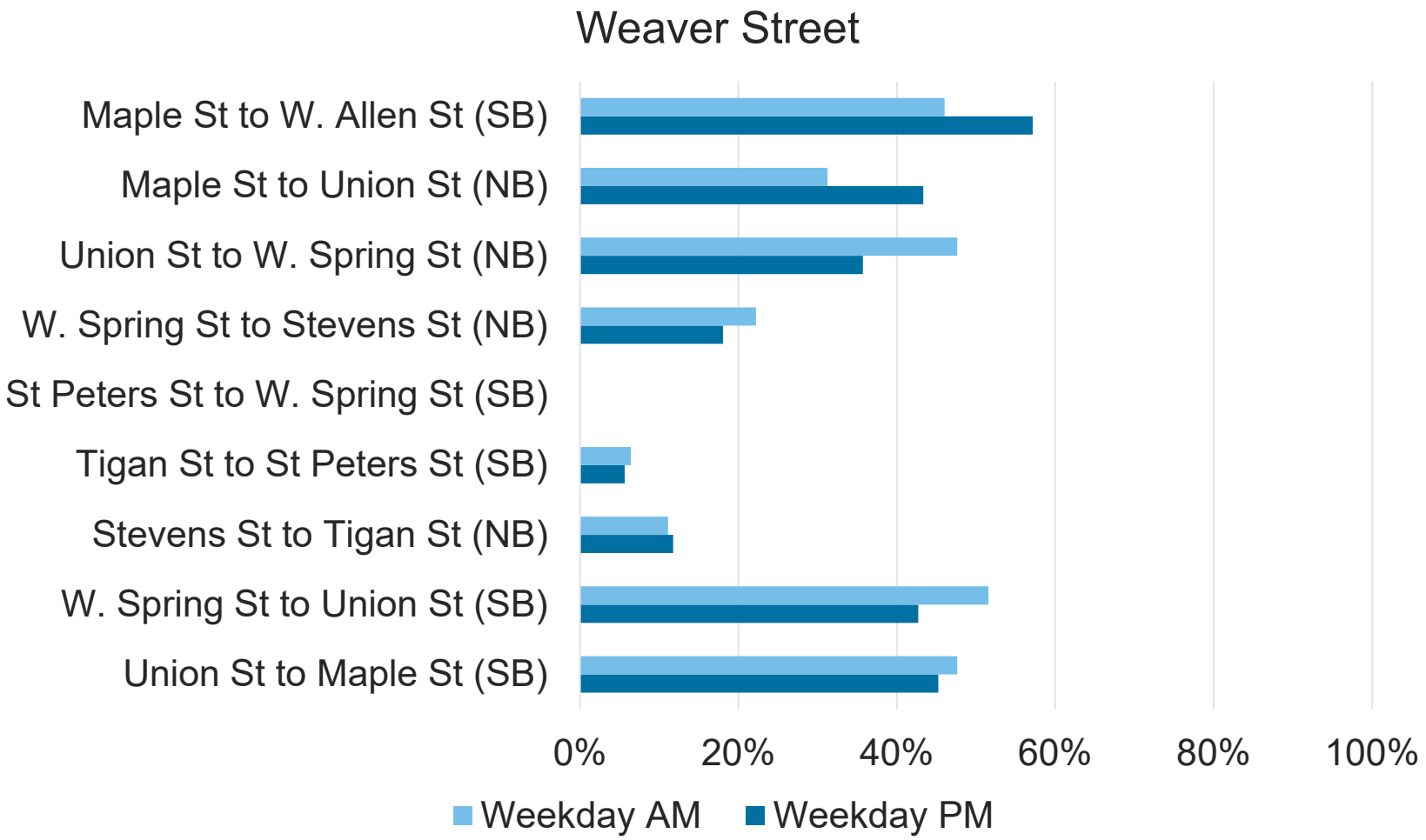

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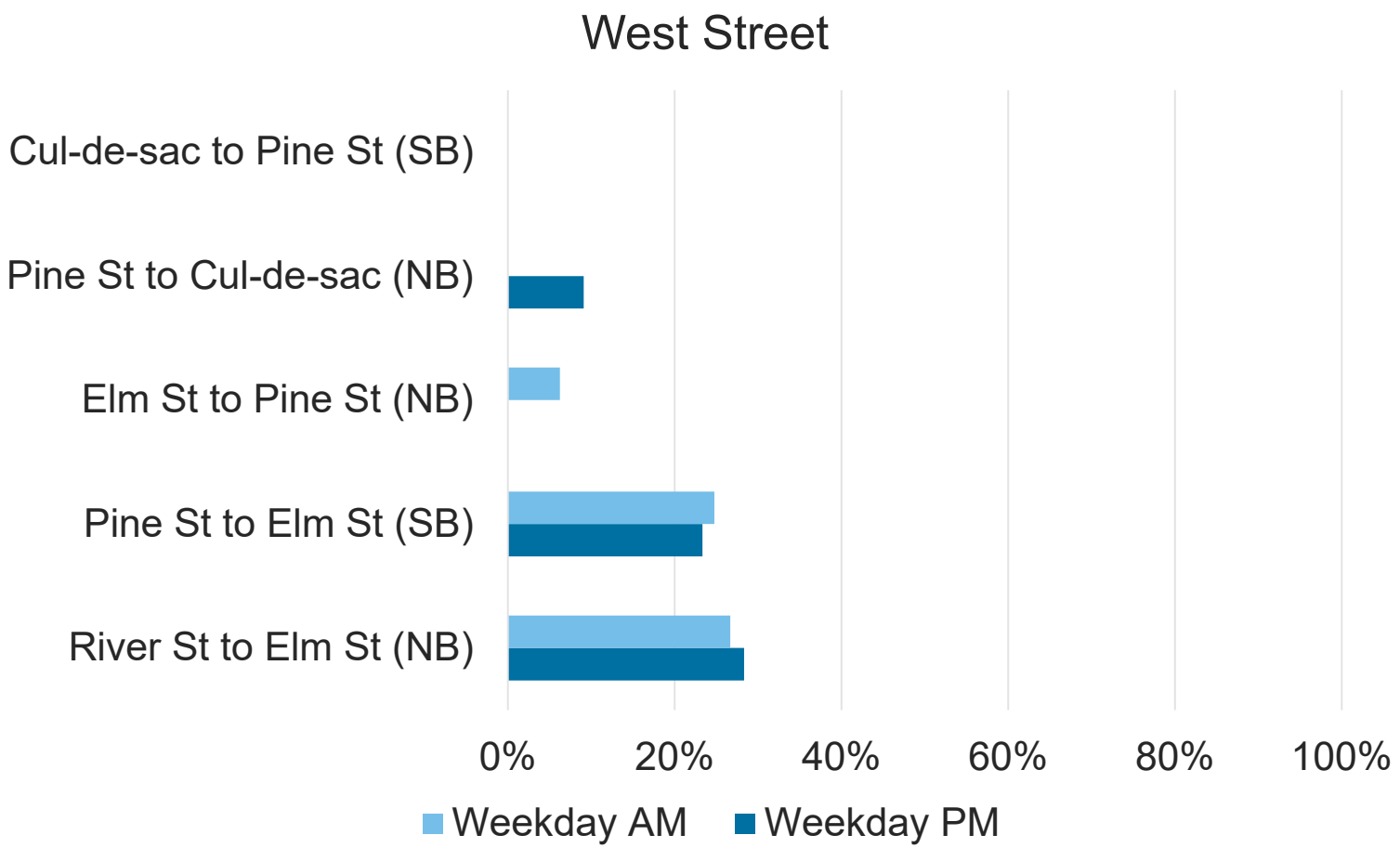
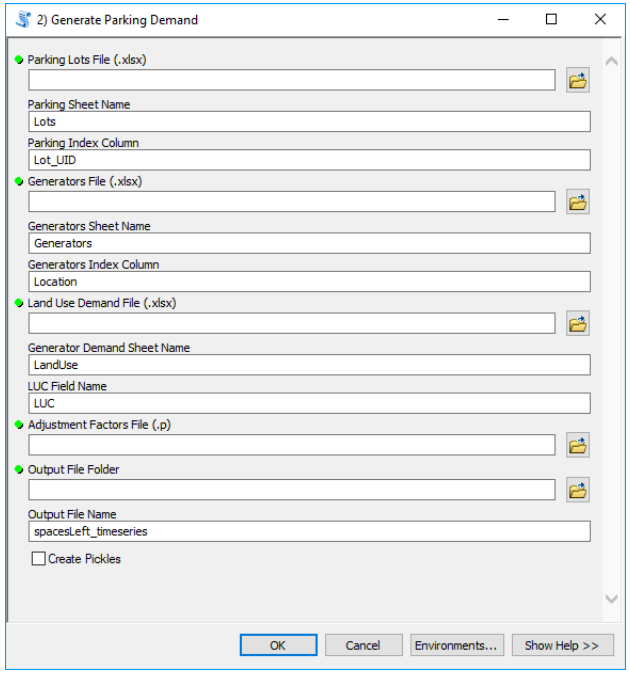


GIS Tool

RSG developed a GIS based implementation of the ULI Shared Parking methodology that distributes the parking demand from any land use to the nearby parking areas.

The total demand can be compared to the supply of parking using the shared parking data.

Accounts for distances between the land use and parking lot.



Toolbox interface

Name	Location	LUC	Type	Size	Unit	EmpUID	ParkingLots
Optometrist	10482	63	Medical/Dental Office	3.643	ksf GFA	1	3;5;2;6;1
Salon	10859	10	Retail	7.176	ksf GLA	2	3;5;2;6;1
HOME DEPOT U.S.A., INC.	11052	10	Retail	100	ksf GLA	3	3;6;5;1;4
WAL-MART STORES, INC.	11105	10	Retail	100	ksf GLA	4	3;5;2;6;1

Inputs are land use, size, type, and preferred parking area

Tabular output of demand for each lot by time of day

Month	December
Day	Weekend

Sum of spaces	Column Labels						
Row Labels	1	2	3	4	5	6	Grand Total
12:00 AM	102	58	316	198	318	215	1207
6:00 AM	102	58	293	198	318	215	1184
7:00 AM	102	58	258	198	318	215	1149
8:00 AM	102	58	170	198	318	215	1061
9:00 AM	102	58	0	198	296	215	869
10:00 AM	102	58	0	198	220	140	718
11:00 AM	102	58	0	198	143	101	602
12:00 PM	102	58	0	198	103	41	502
1:00 PM	102	58	0	198	87	0	445
2:00 PM	102	58	0	198	20	0	378
3:00 PM	102	58	0	198	20	0	378
4:00 PM	102	58	0	198	53	0	411
5:00 PM	102	58	0	198	89	6	453
6:00 PM	102	58	0	198	114	63	536
7:00 PM	102	58	0	198	127	92	577
8:00 PM	102	58	0	198	186	108	652
9:00 PM	102	58	0	198	237	173	768
10:00 PM	102	58	9	198	318	215	900
11:00 PM	102	58	192	198	318	215	1083

Scenarios

- Model effect of changing on-street parking on Main Street
- Model effect of reducing off-street parking minimums
- Model effect of increasing the land uses on the study area streets
- Model effect of changing other policies such as pricing, modal integration, resident only, etc.

Run the model with changes in land use and changes in the parking supply

Run the model with changes in land use and keeping the parking supply fixed

Estimate effects of these policies. Then reduce the parking demand factors and run the parking model

Policy and Regulatory Review

1. Review and consider changes to current city **parking management strategies** including enforcement, pricing, payment mechanisms, enhancing modal integration, etc.
2. Review and consider changes to 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.

The project team will use a review of other resources including adjacent municipalities, local and regional parking studies, case studies from other local governments, previous work carried out by the team, and other professional input to guide the recommendations.

Outreach and Public Engagement

Outreach and Public Engagement

Public

- Project website
- Public comment portion of Advisory Committee meetings
- Surveys

Advisory Committee

- Stakeholders across the city
- Public, landowners, developers, policy
- Meet at critical junctures
- Assist with data collection as appropriate

Technical Committee

- Guiding the project and decision making
- Day to day contact and feedback
- Monthly meetings
- Assist with technical aspects of the study

Advisory Committee Input

Current

- What challenges do face regarding parking?
- What opportunities exist to improve parking experience?

Future

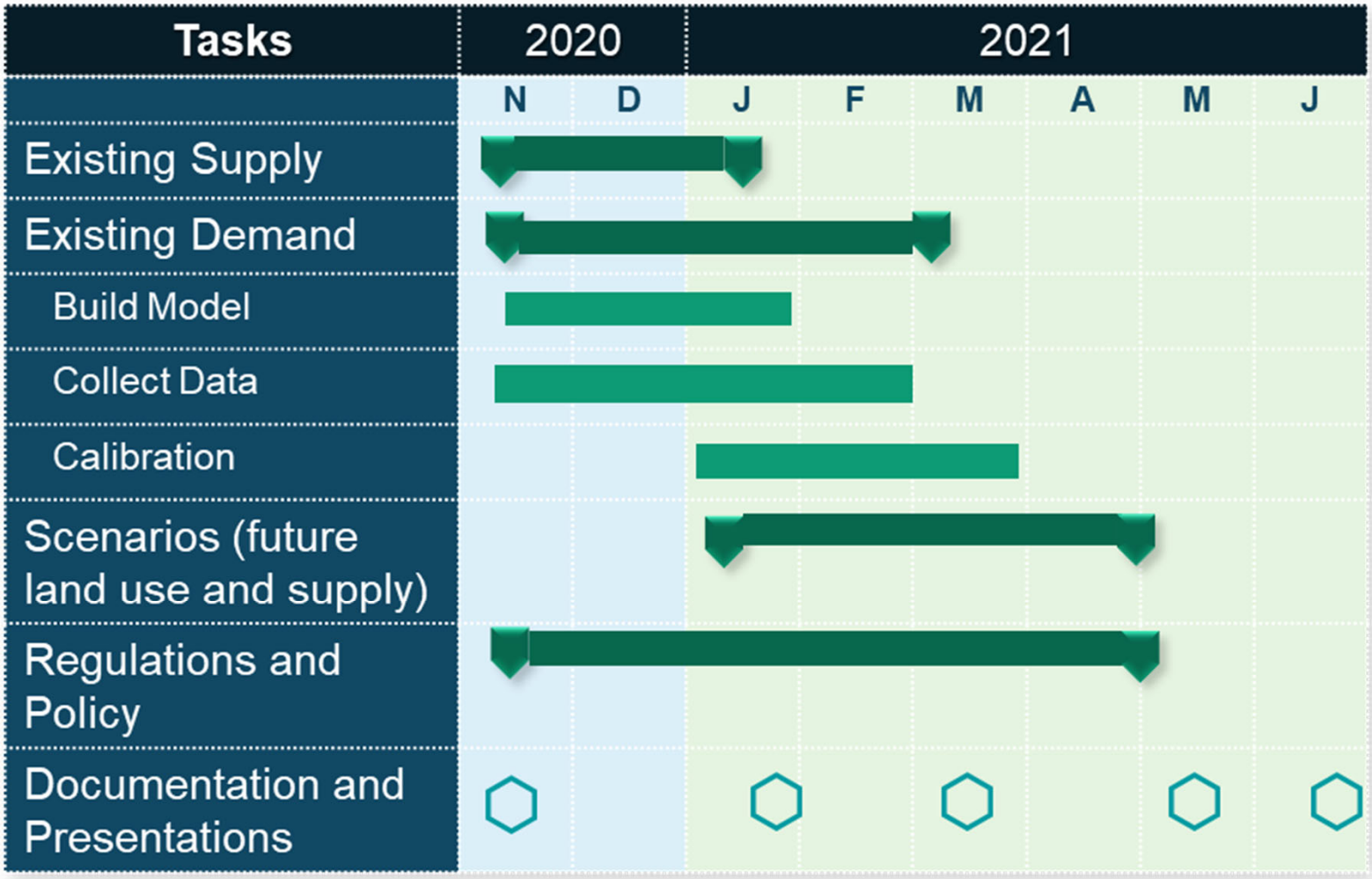
- What challenges do you think will emerge?
- What opportunities do we have to reimagine how parking is managed?

Follow up after tonight

- Additional data collection
- Survey on where people are parking

Schedule

Schedule


Tasks
2020
2021
N
D
J
F
M
A
M
J
Existing Supply
Existing Demand
Build Model
Collect Data
Calibration
Scenarios (future land use and supply)
Regulations and Policy
Documentation and Presentations

Schedule

	Scheduled Deliverable Timeline
Existing Supply	End of January 2020
Existing Demand	
Build Model	End of January
Collect Data	End of February
Calibration	Mid-March
Scenarios (future land use and supply)	End of April
Regulations and Policy	End of April
Documentation and Presentations	
Kickoff Mtg	Mid-Jan
Technical Team Mtg	end-Feb, mid-March, mid-April, mid-May, mid-June
Advisory Committee / Public Meetings	January, March, May, June

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