



Concord Parking Management Plan

Concord Center
Tuesday, October 23, 2012



Today's Agenda

1. Welcome
2. Study Overview & Process
3. Analysis
 - Inventory
 - Surveys
 - Parking Utilization
4. Draft Strategies
5. Discussion

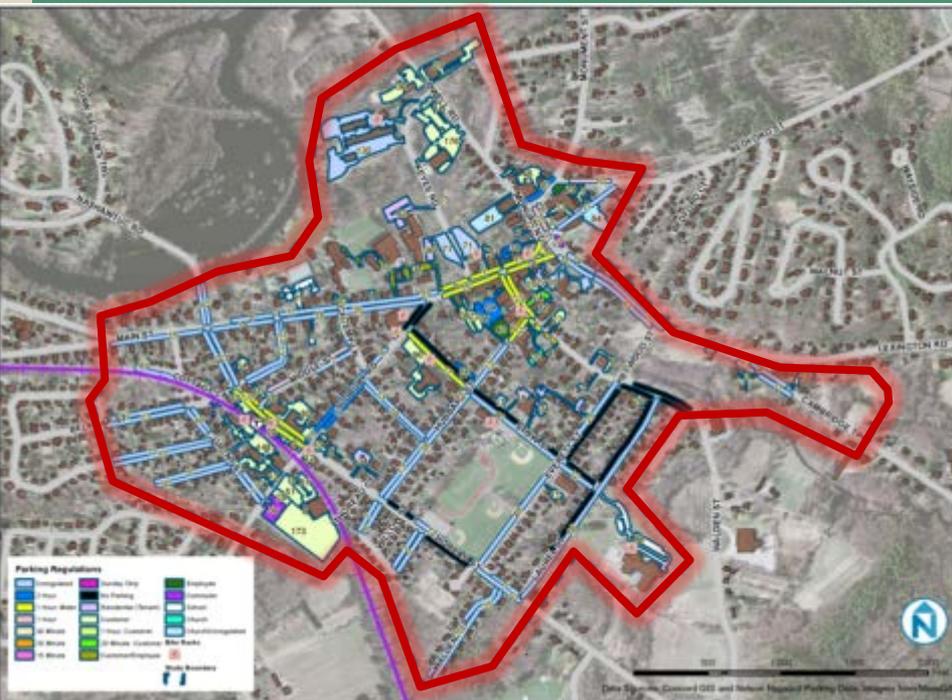
General Parking Principles

- Provide convenient parking for **customers / clients**
- Establish clear Town and private **employee parking** areas
- Accommodate **commuter parking** appropriately
- Protect **residential neighborhoods** from spillover



Comprehensive Parking Management Planning

Concord Center



West Concord



Developing a Parking Management Plan

Analysis

Parking Supply and Demand

- Identify Existing Conditions
- Parking Utilization Data Collection
- Utilization Database and Mapping

Spring/Summer 2012



Public Process

Parking User Profiles

- Online Survey +400 respondents
- Public Open House
- Tourist Survey ~70 respondents
- Stakeholder Interviews
- Concord Business Partnership meeting

Fall 2012



Strategy Development/ Draft Recommendations

Public Meetings

- Concord Center
- West Concord

Draft Parking Management Plan

Recommendations Update

Final Parking Management Plan

Board of Selectmen Meeting

Public Process



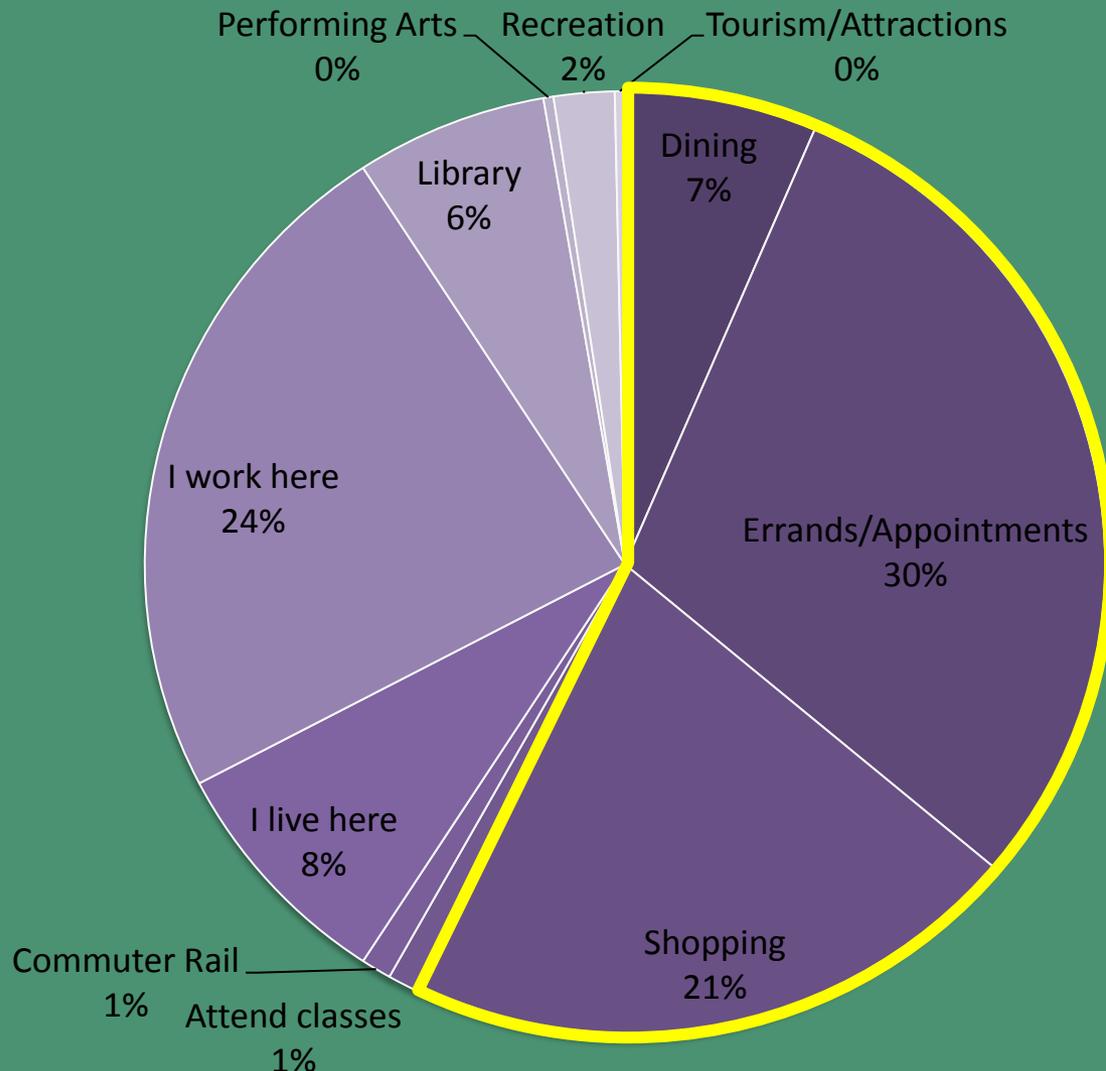
MAY 2012 OPEN HOUSE – PUBLIC COMMENTS



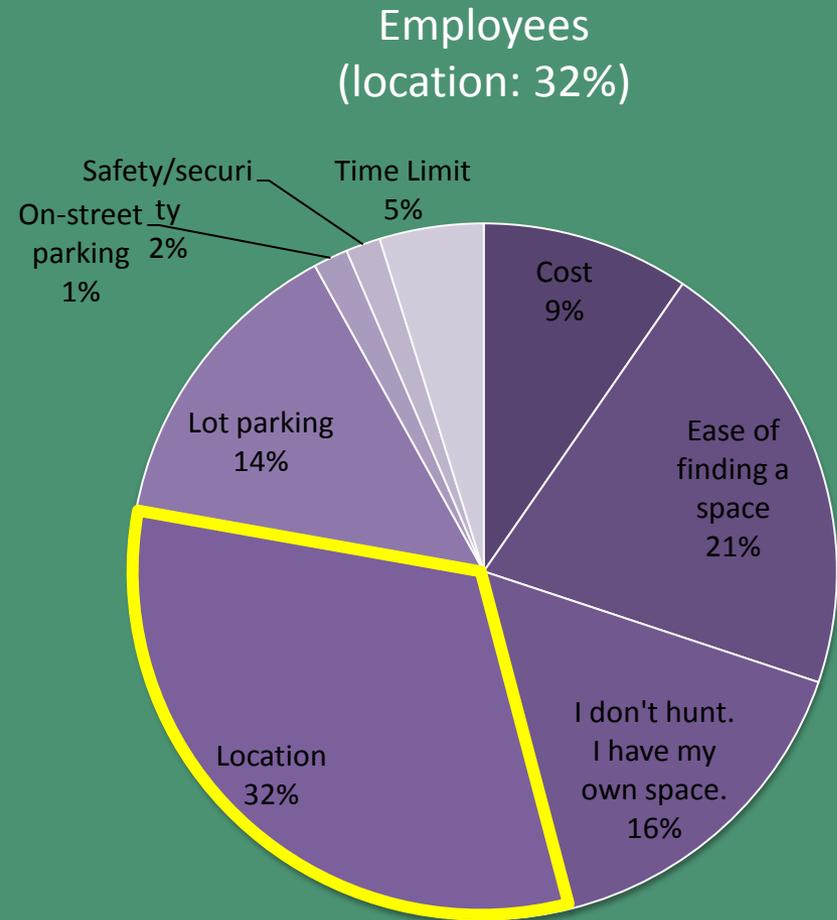
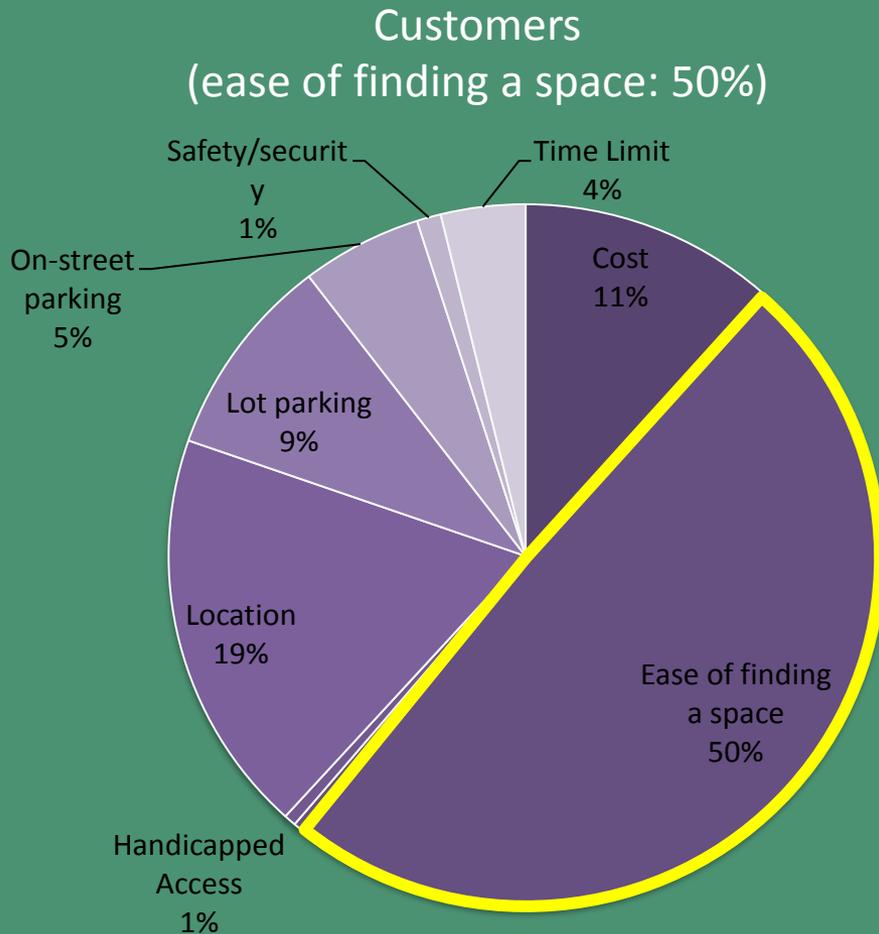
Online/Tourist Surveys

- 400+ online surveys
 - Available for three months
 - 16 questions plus open-ended responses
- Tourist surveys
 - 70 completed surveys
 - Distributed in July to Visitors Center and other locations

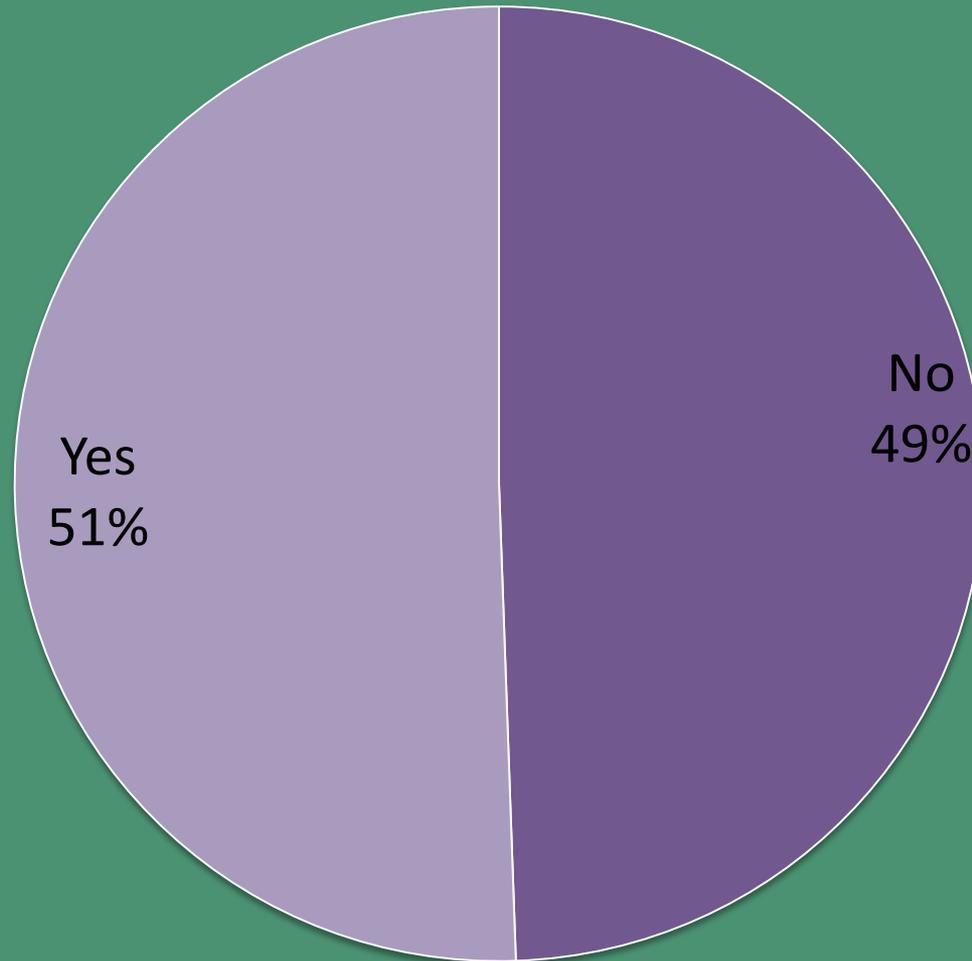
60% Come to Concord Center for Shopping/Errands/Appointments/Dining



Customers want to find parking quickly; Employees prefer a convenient location

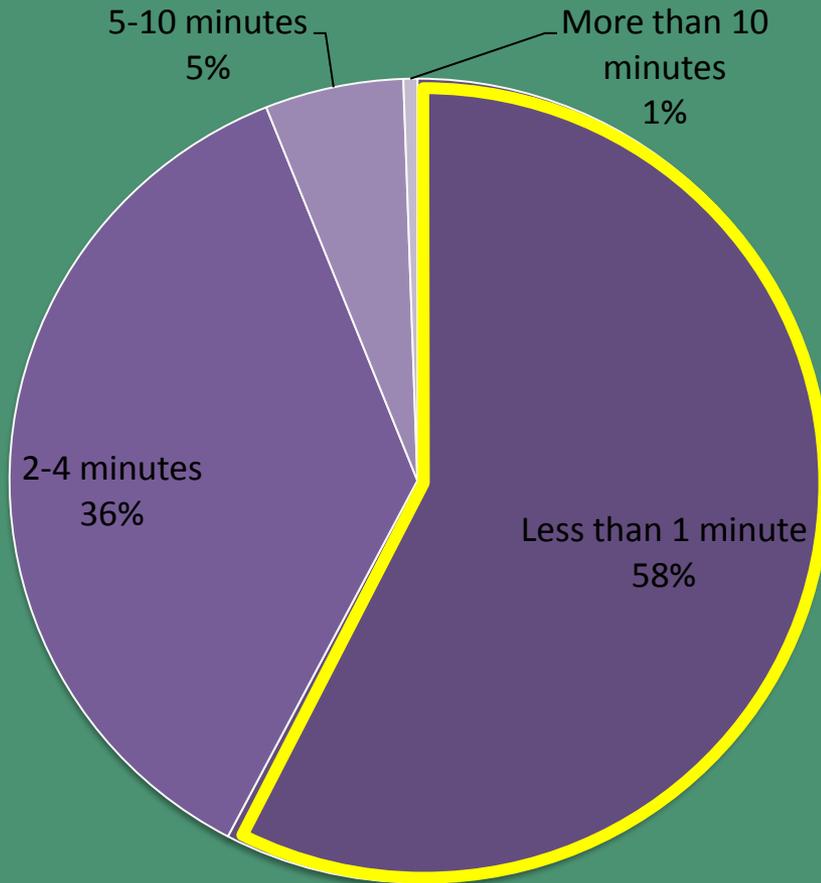


Half of Customers Have Failed to Find Parking and Left

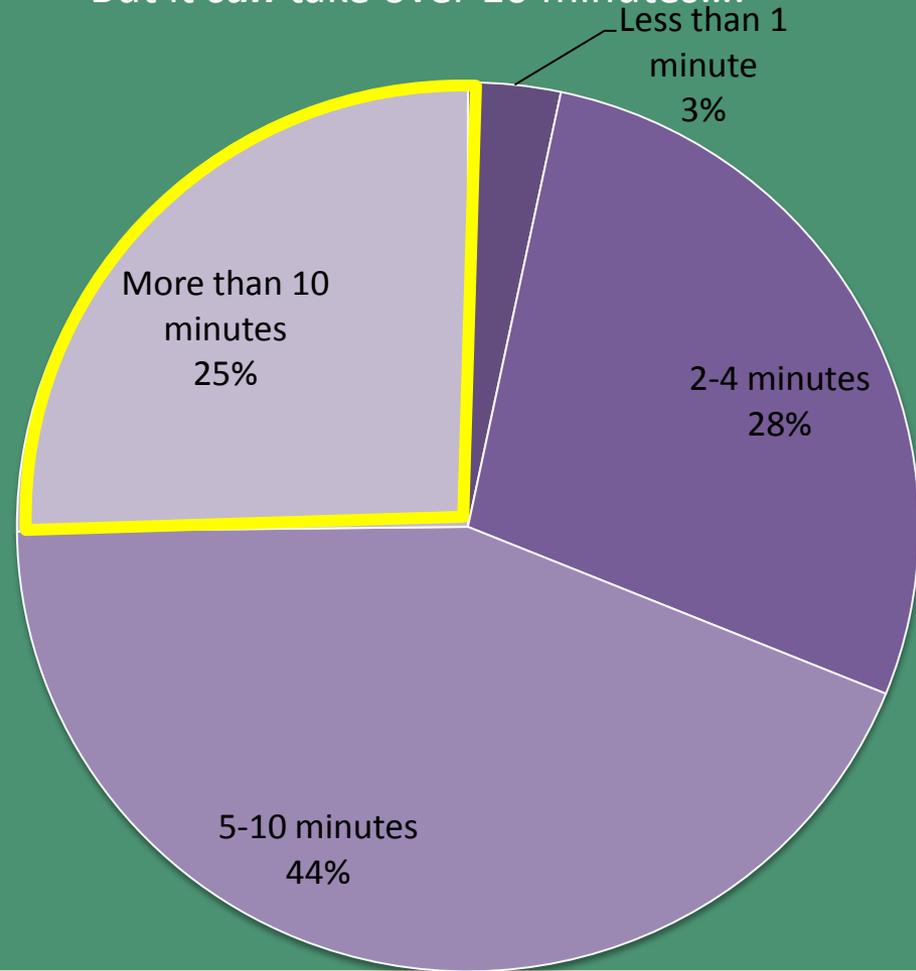


It usually takes customers 2-4 minutes to find a parking space

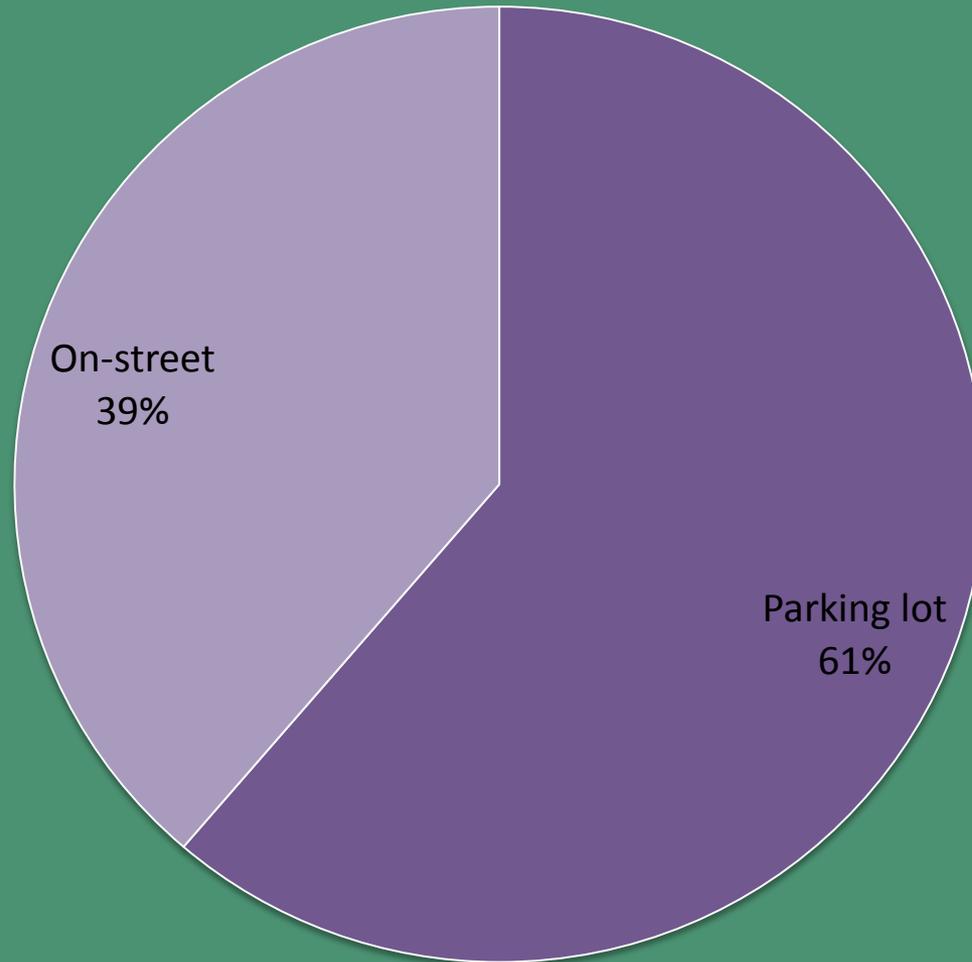
Though **today** it took under a minute...



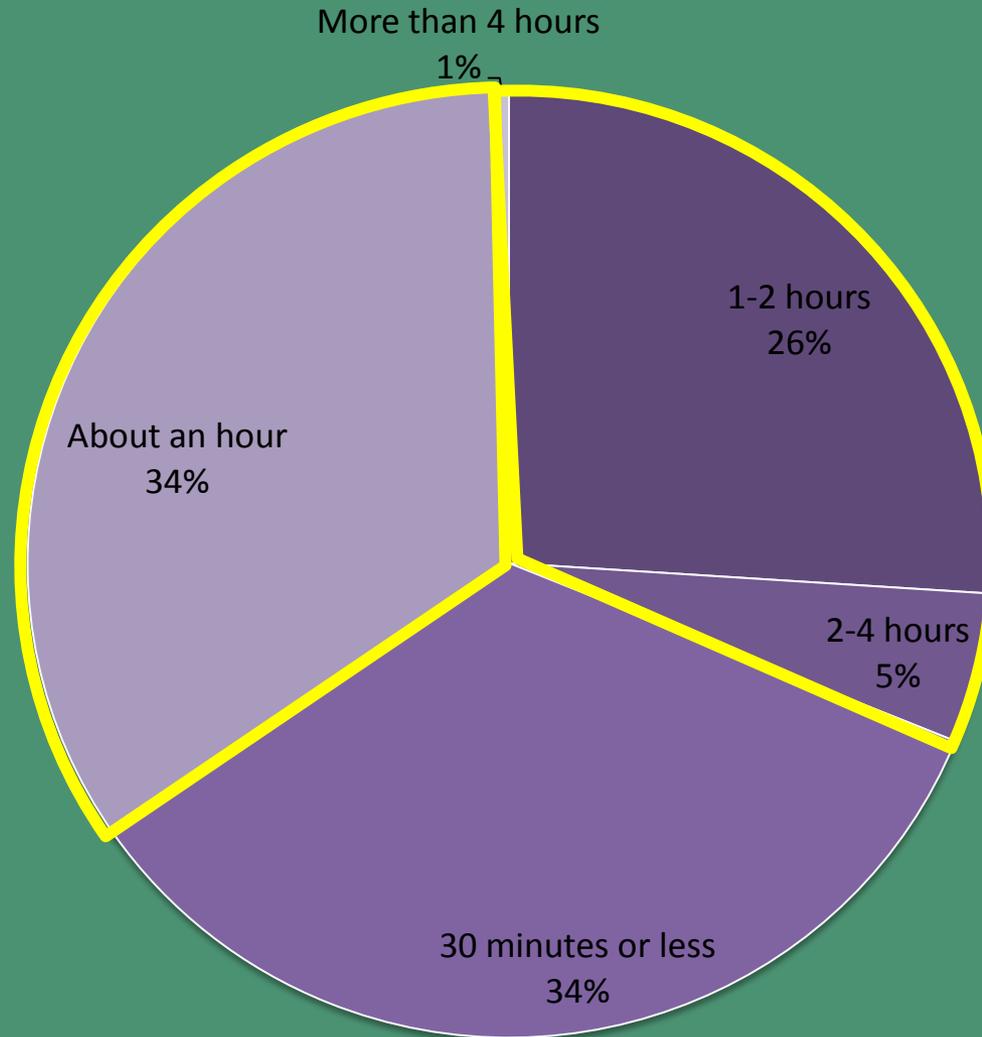
But it **can** take over 10 minutes....



Tourists Park Off-Street 60% of the Time



Over 30% of Customers Stay longer than 1 hour; 2/3 stay longer than 30 minutes



Parking Supply and Utilization



Study Area

STUDY AREA SUPPLY

On-Street: 1,191

Off-Street: 2,708

TOTAL: 3,899

CENTER SUPPLY

On-Street: 352

Off-Street: 1,250

TOTAL: 1,602

DEPOT SUPPLY

On-Street: 399

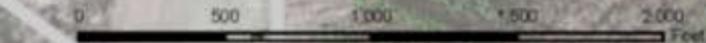
Off-Street: 644

TOTAL: 1,043

Parking Regulations

Unregulated	Sunday Only	Employee
2 Hour	No Parking	Commuter
1 Hour, Meter	Residential (Tenant)	School
1 Hour	Customer	Church
30 Minute	1 Hour, Customer	Church/Unregulated
20 Minute	20 Minute, Customer	Bike Racks
15 Minute	Customer/Employee	

Study Boundary



Data Sources: Concord GIS and Nelson Nygaard Parking Data. Imagery from MassGIS

Parking Utilization: Weekday

- **Less than 60%** of parking capacity is utilized
- Peak utilization occurs **mid-day around lunch**
- Centrally-located, general-access off-street lots **always had availability**
- On-street demand spiked **after 5pm**

Parking Utilization: Weekday



On-street: 1,191 spaces

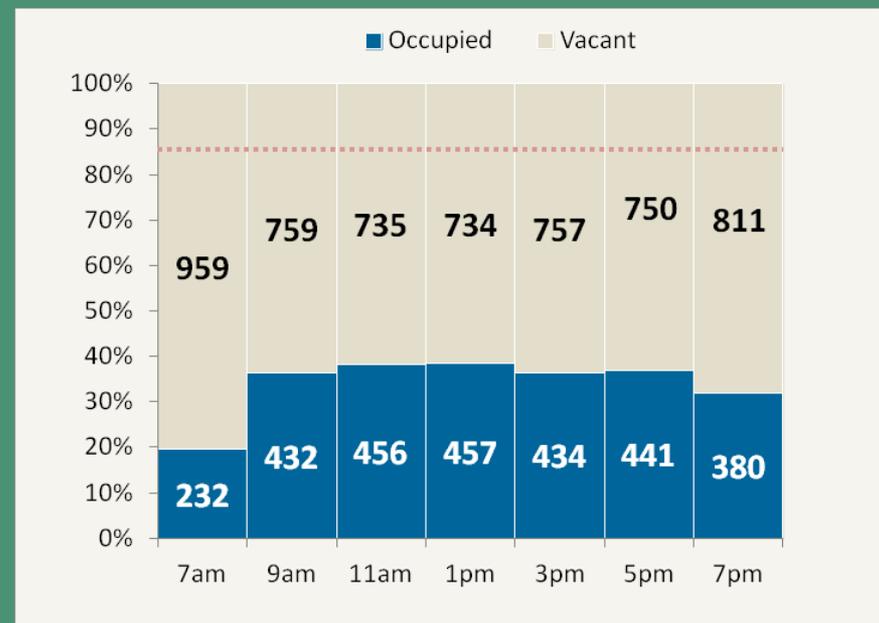
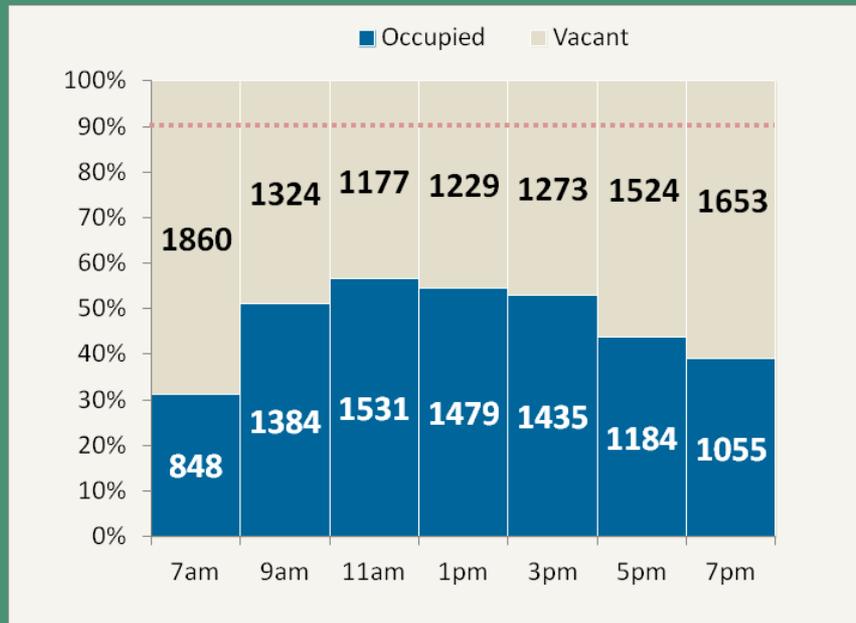
Off-street: 2,708 spaces

Total: 3,899 spaces

Parking Utilization: Weekday

Off-Street

On-Street



Parking Utilization: Weekday

Available to General Public



Restricted Access



Parking Utilization: Weekday

Public Off-Street

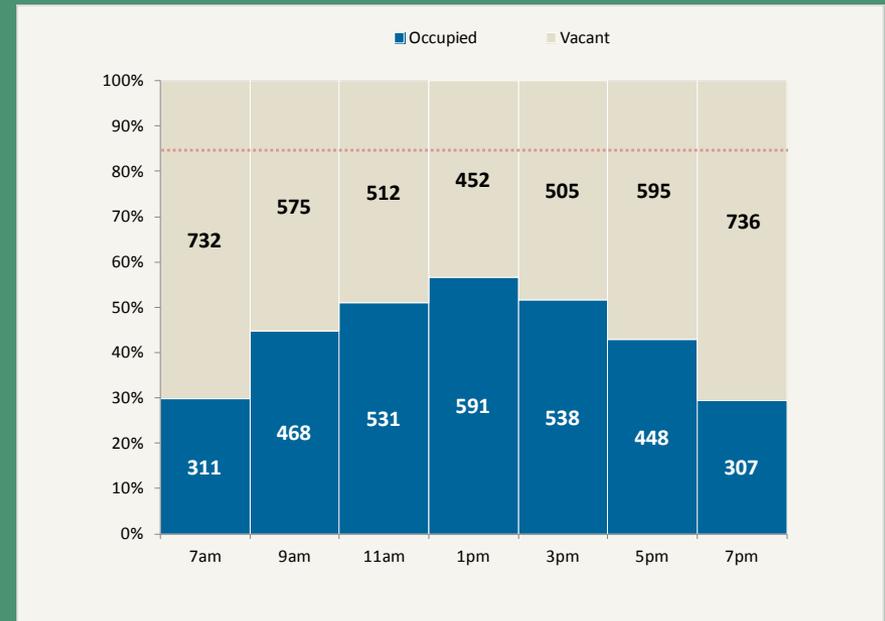


Private Off-Street



Parking Utilization: Weekday

Thoreau Street Depot



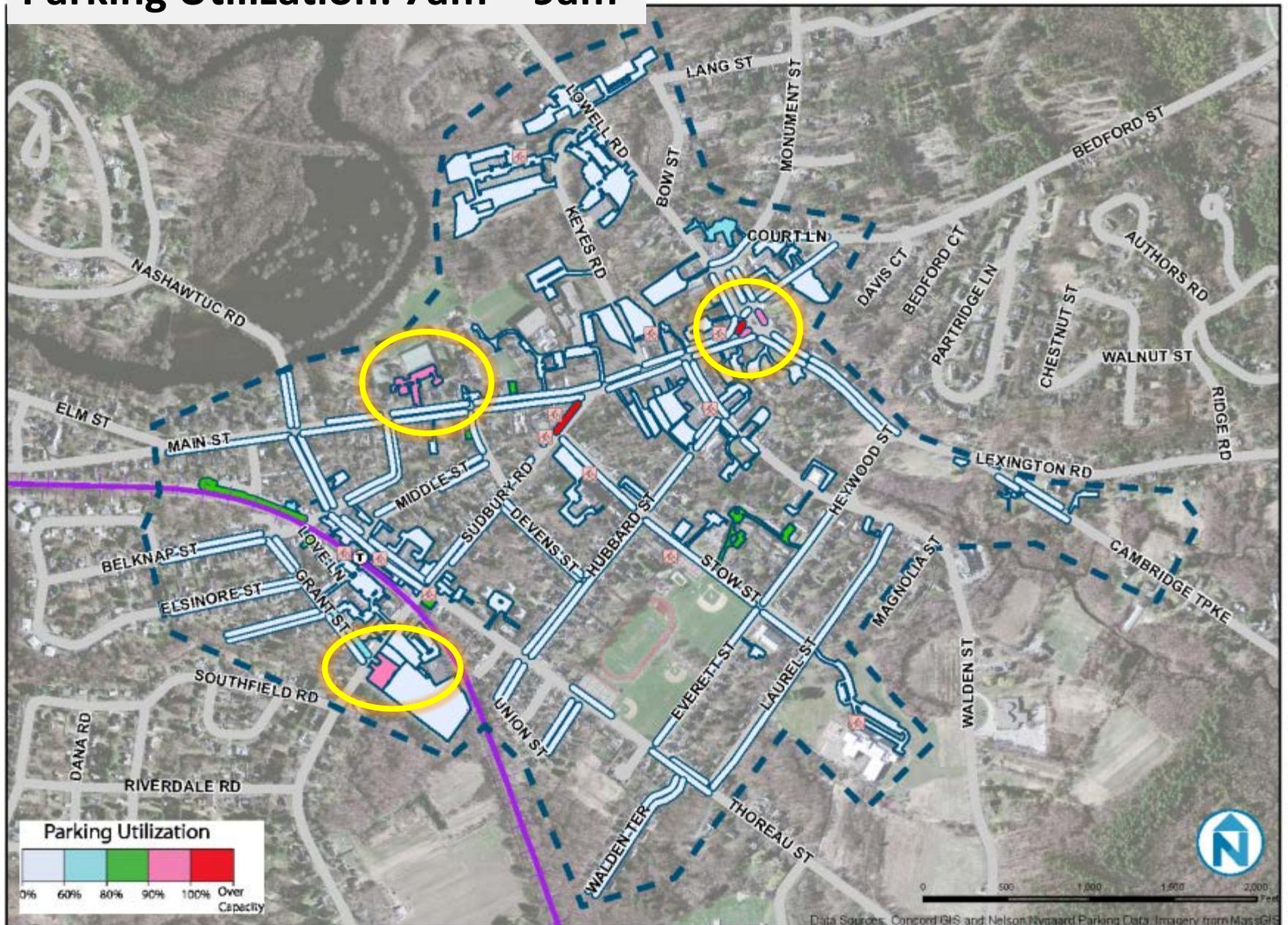
Study Area



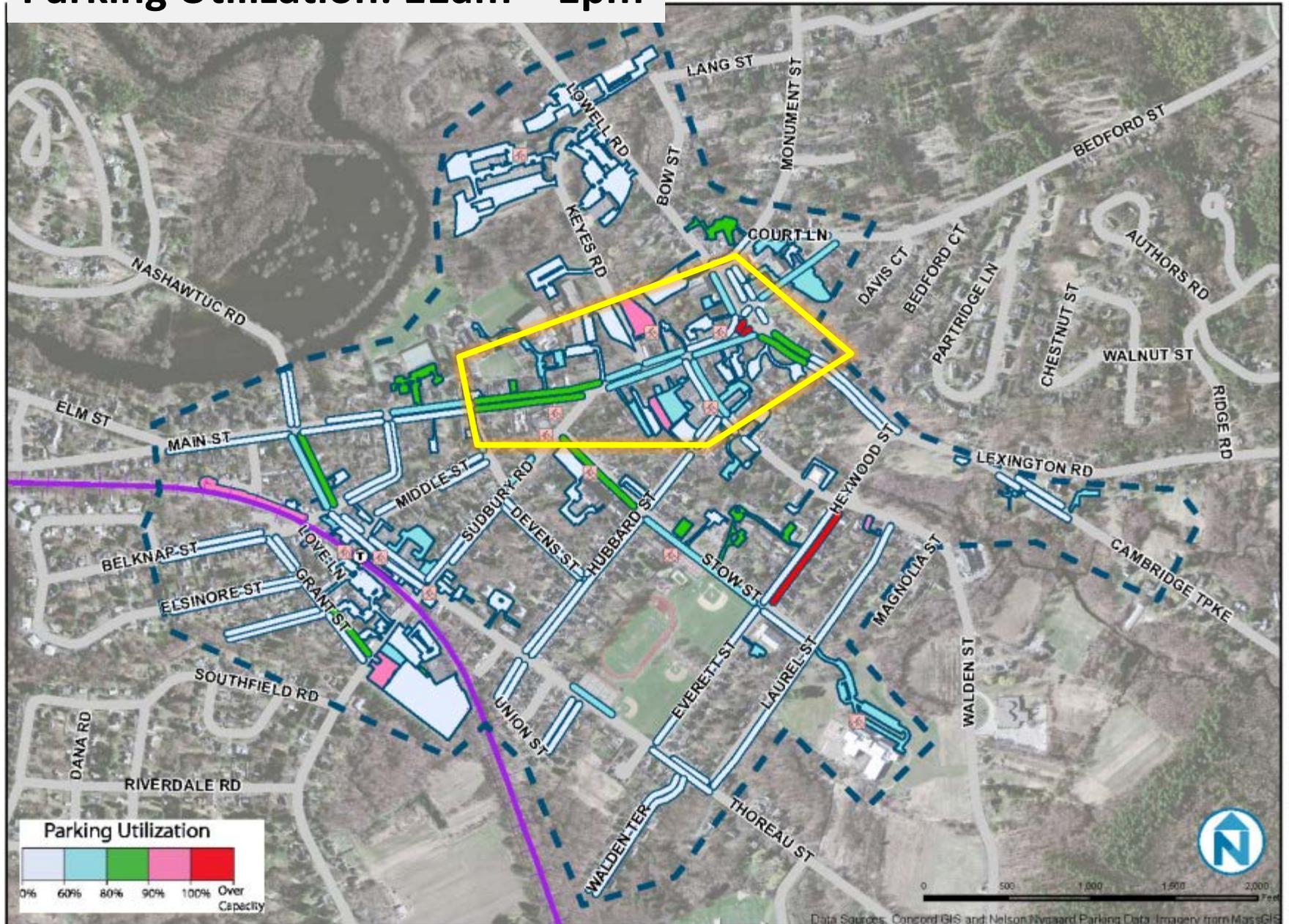
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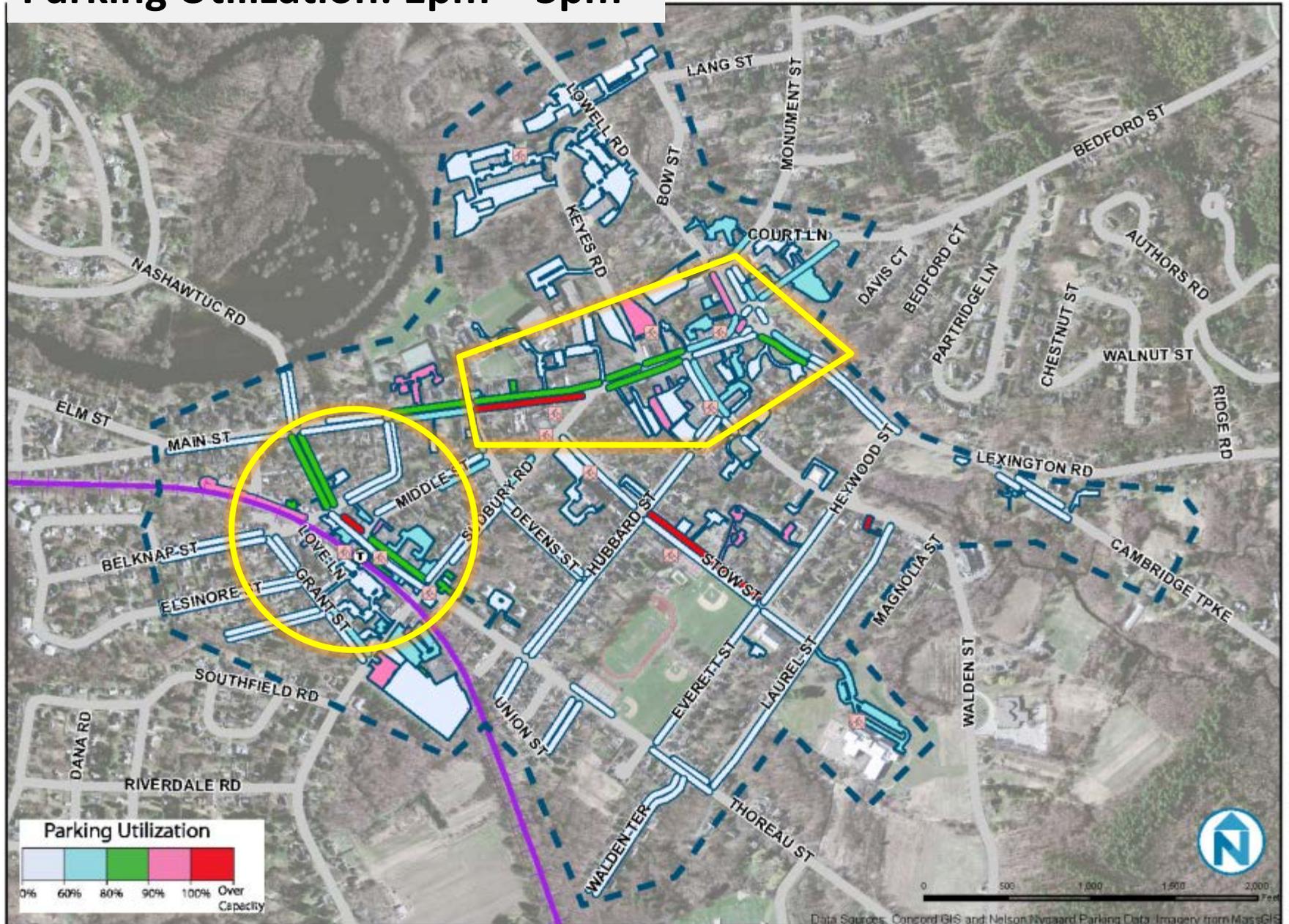
Parking Utilization: 7am – 9am



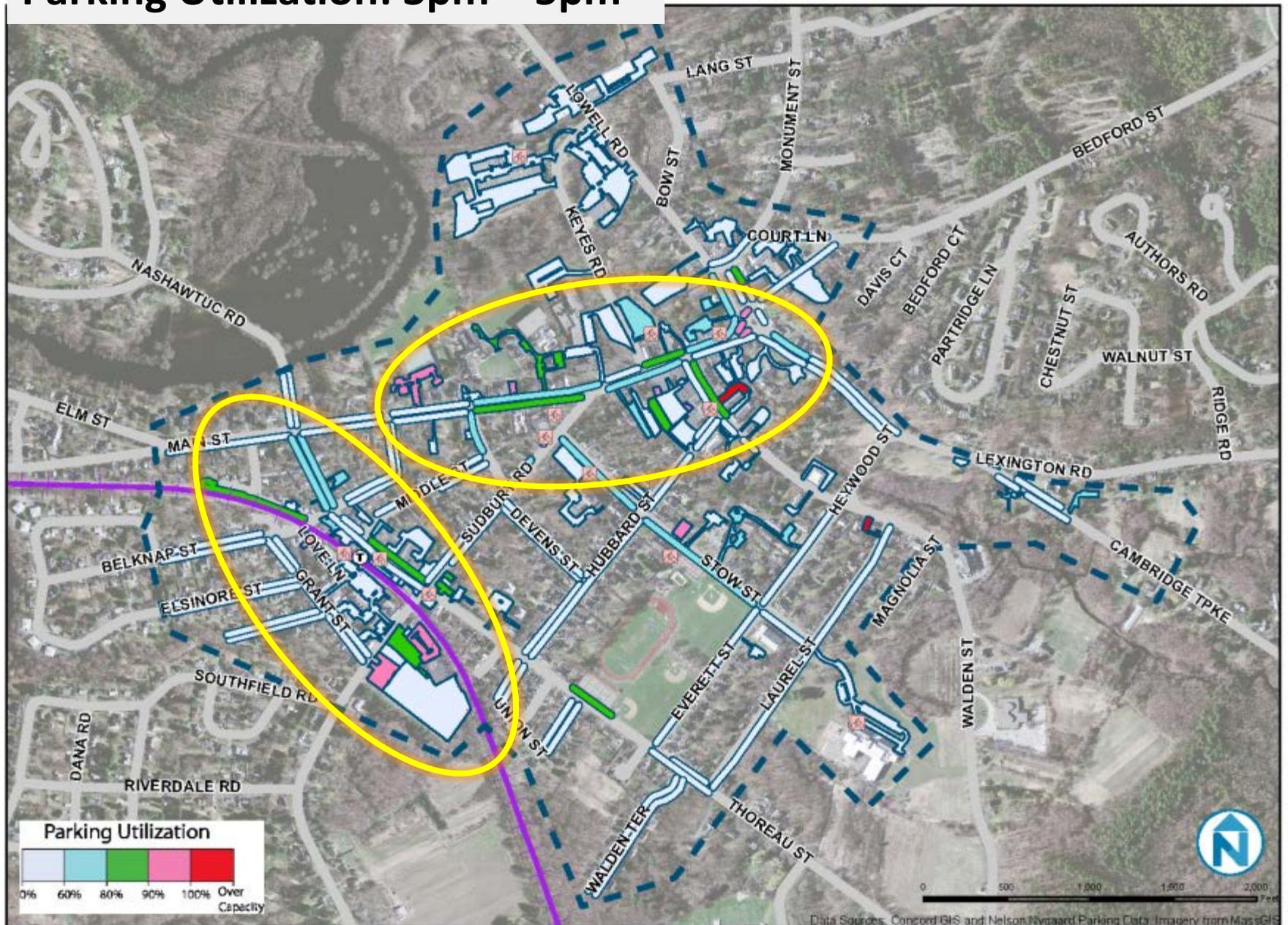
Parking Utilization: 11am – 1pm



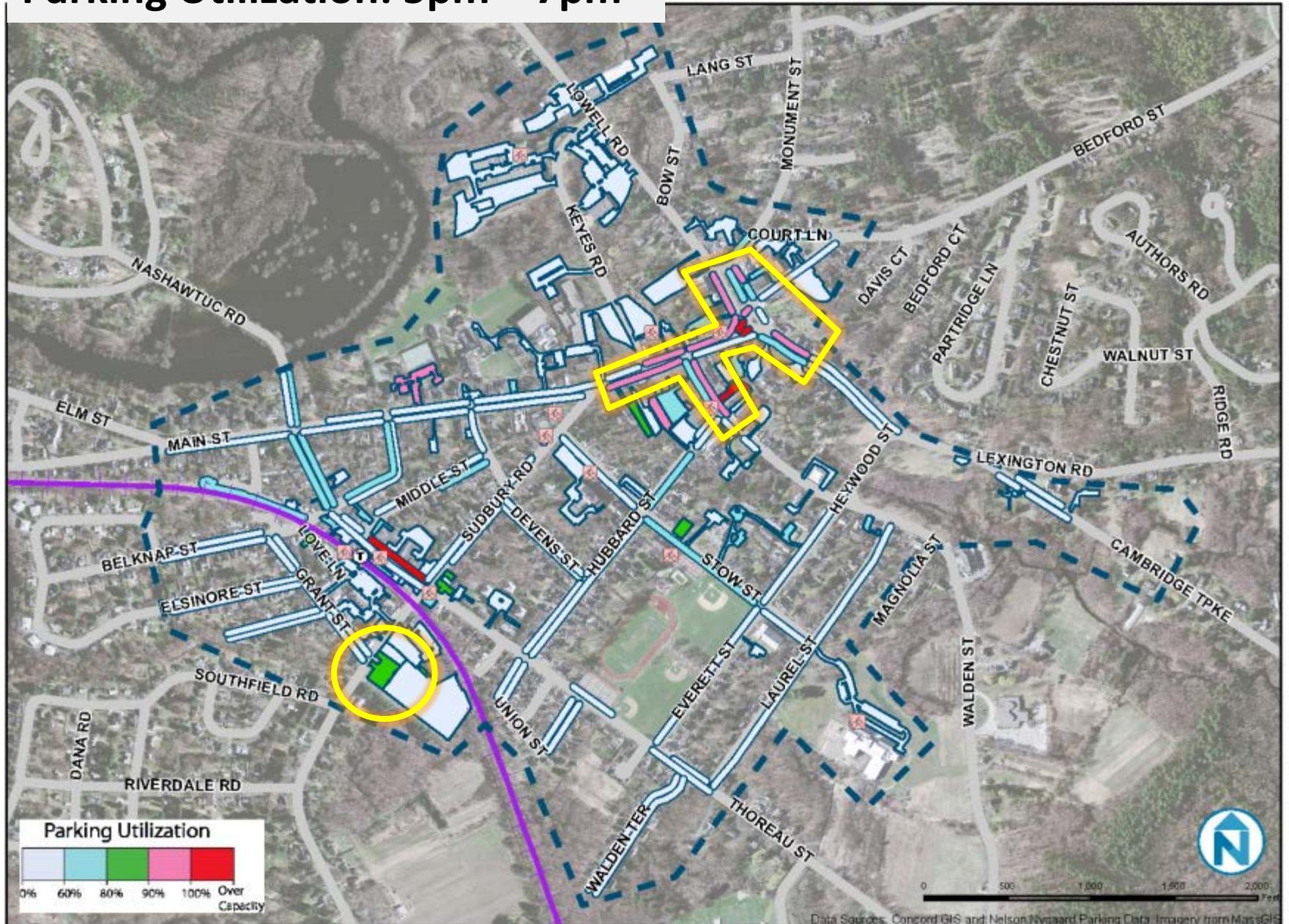
Parking Utilization: 1pm – 3pm



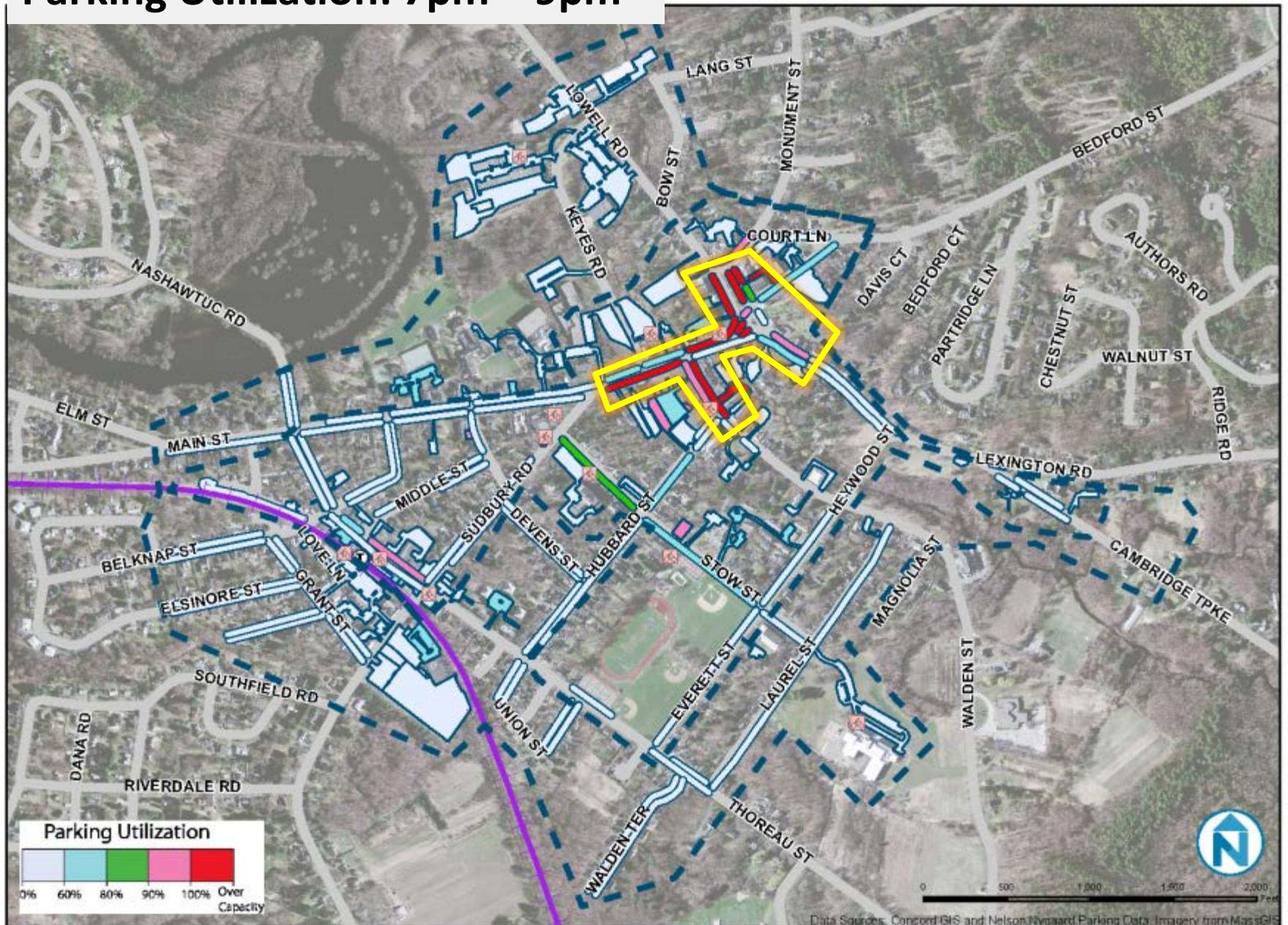
Parking Utilization: 3pm – 5pm



Parking Utilization: 5pm – 7pm



Parking Utilization: 7pm – 9pm



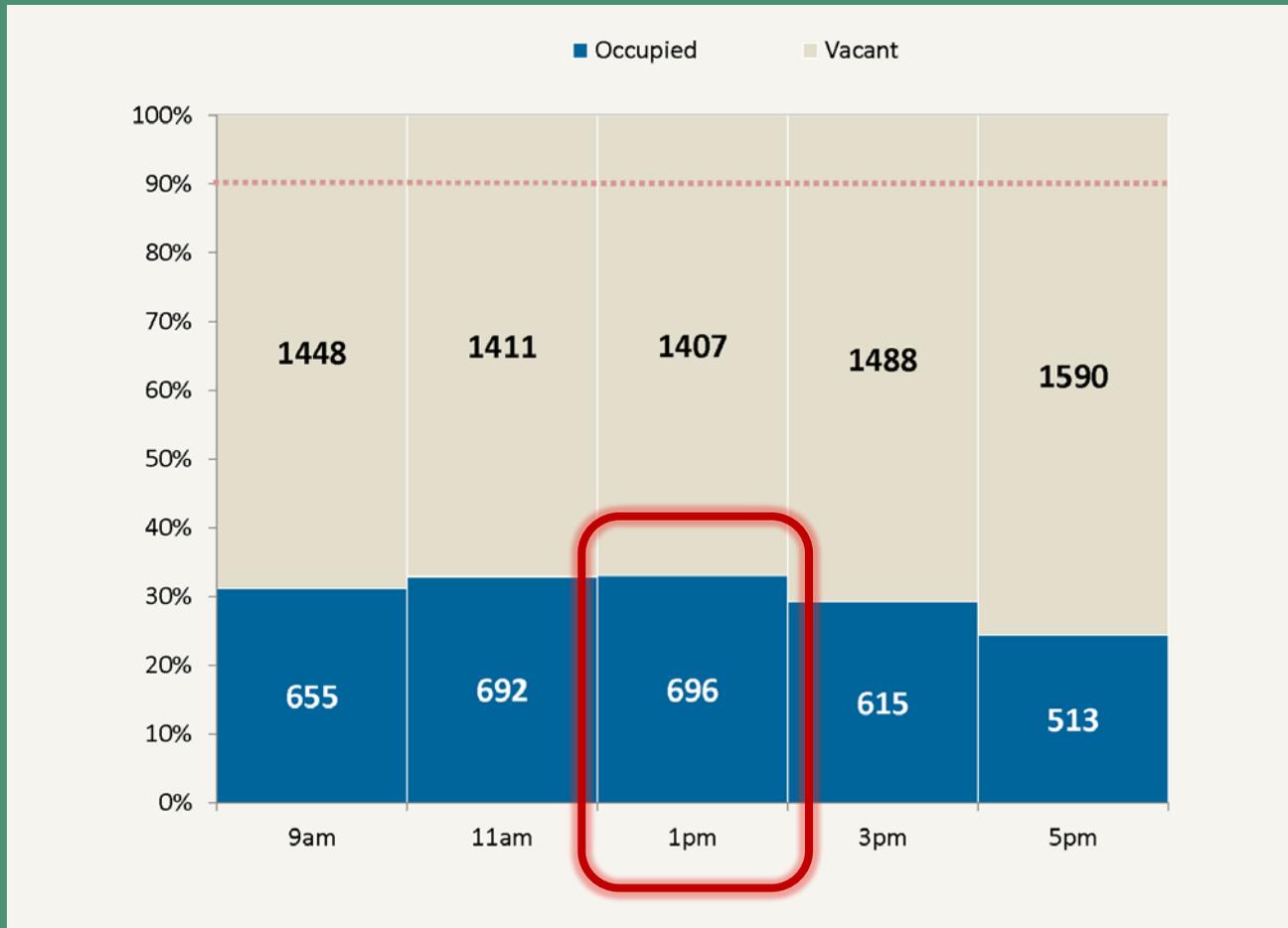
Parking Utilization Concord Center - Weekday

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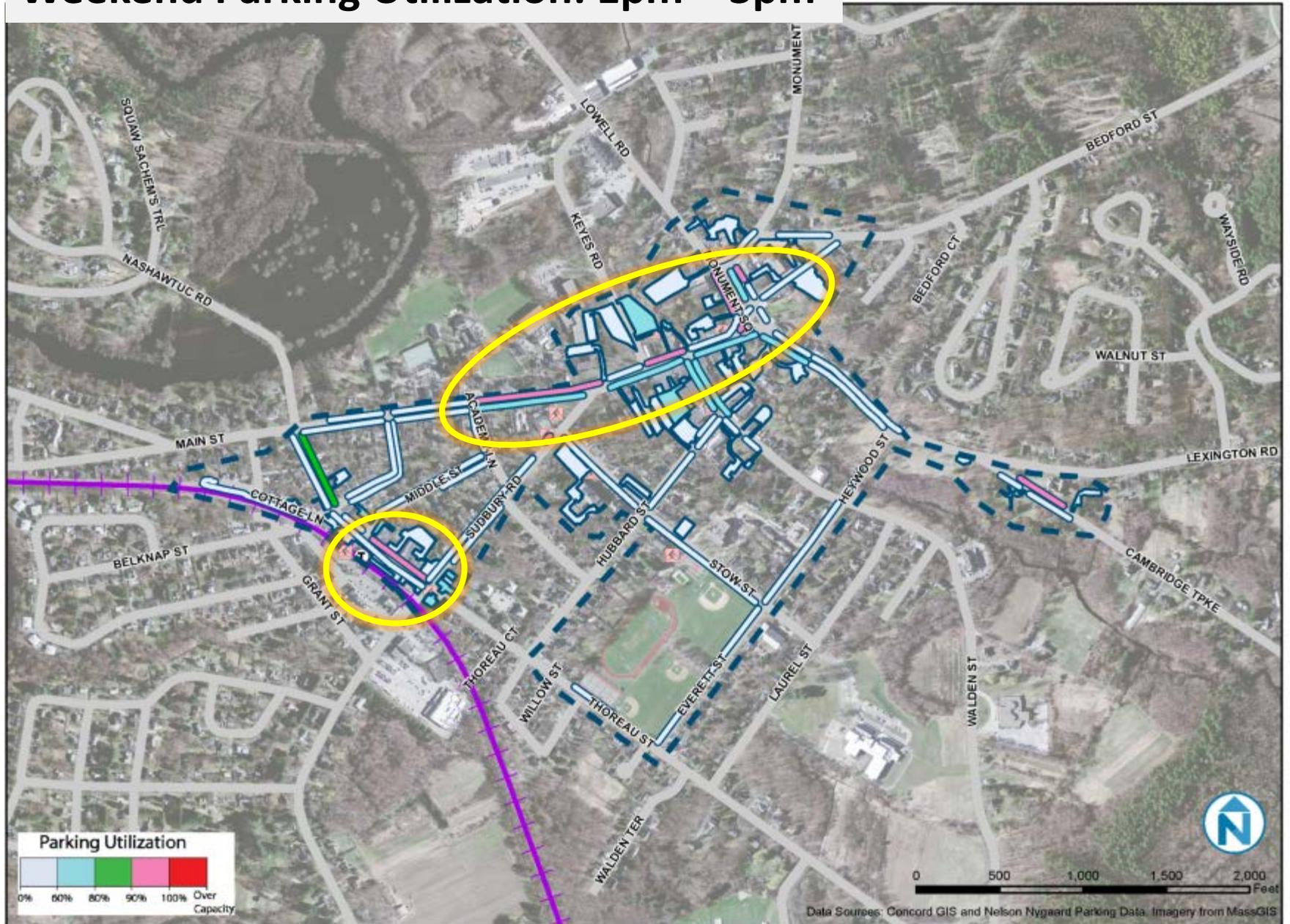
Parking Utilization: Concord Center - Weekend



Parking Utilization – Concord Center Weekend



Weekend Parking Utilization: 1pm – 3pm



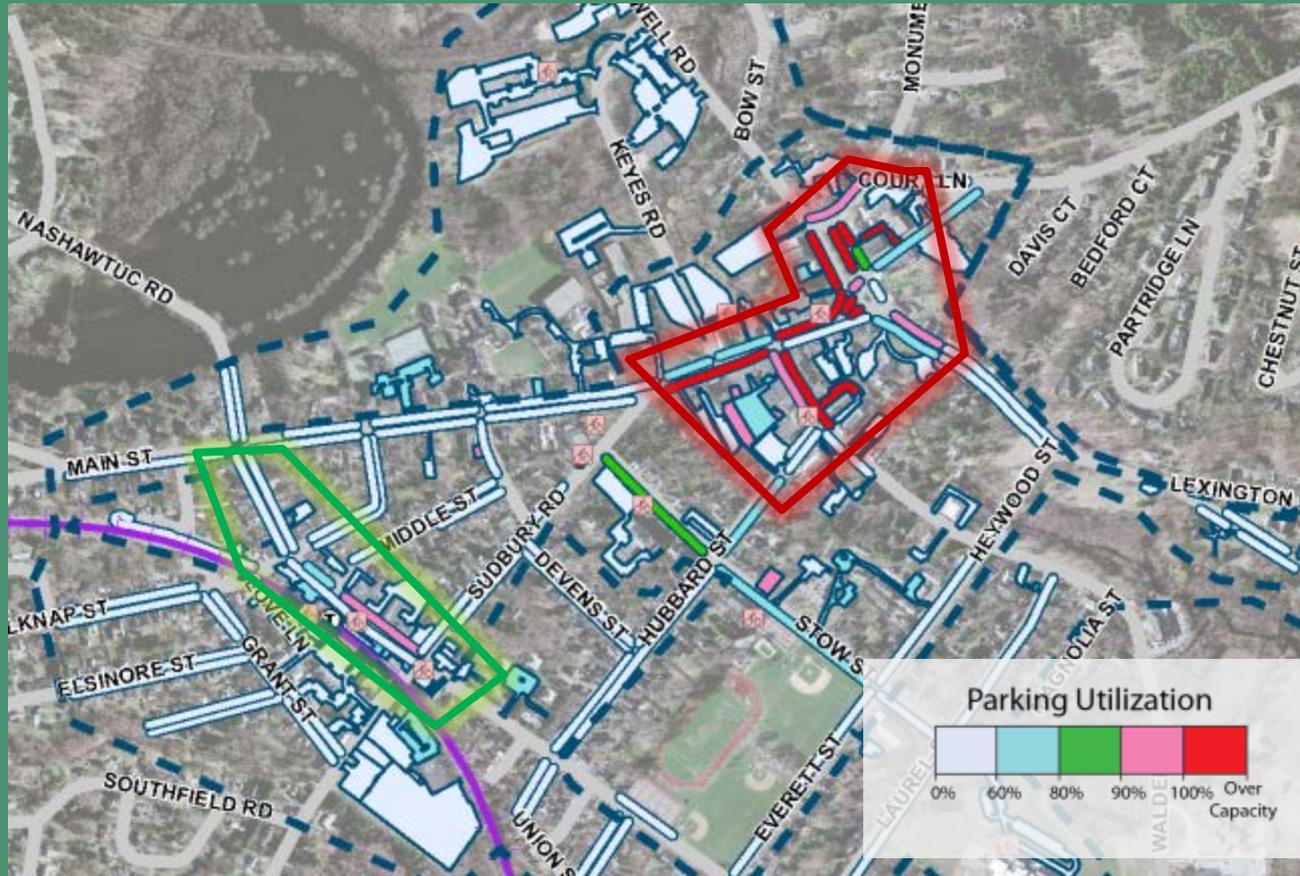
Parking Utilization Concord Center - Weekend

- 33% of parking capacity is utilized at peak
- Relatively uniform demand
- Weekend demand is about half of the weekday demand
- Weekend on-street parking along Main and Thoreau Street was often at capacity

INITIAL DRAFT Recommendations



Key Finding: Hard to find customer parking in prime spaces



Principle: Provide available, convenient parking for *customers*

Management

Commuters

Recreational

Signage

Bicycle Parking

Shared Parking

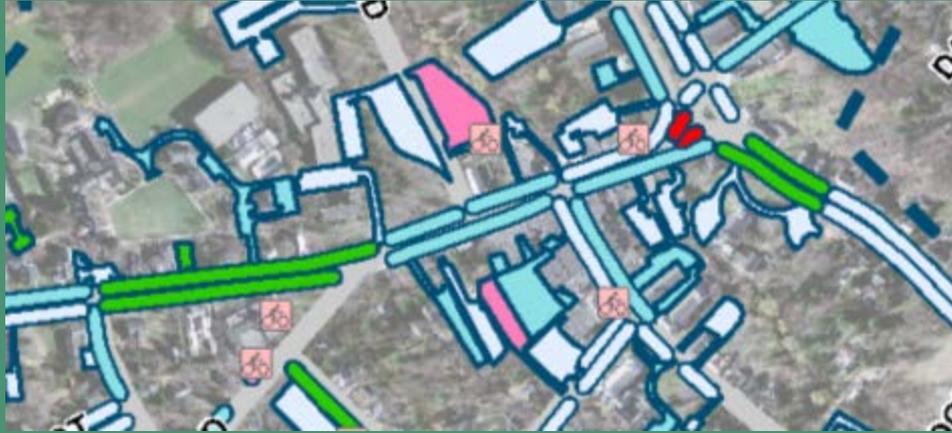
Technology

Hard to find customer parking in prime spaces

- Match demand
- Customer availability
- Economic development
- Keep it simple

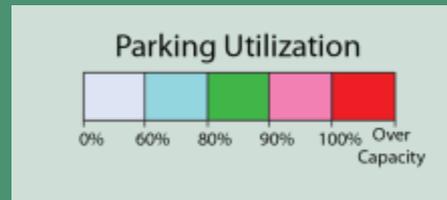
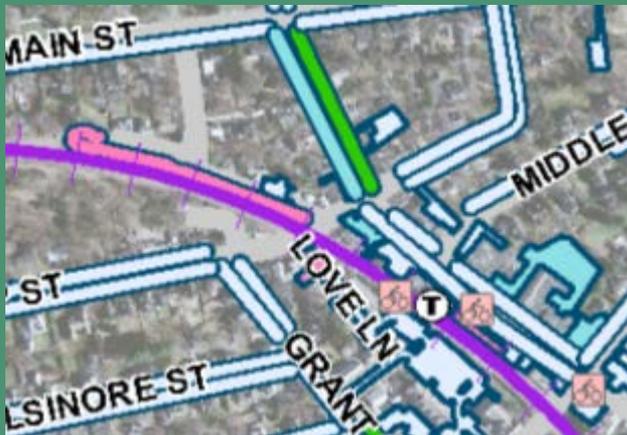
Key Finding: Time limits aren't working

Concord Center (11am – 1pm)



- Time-limited areas have availability
- Areas with no time limits are full

Thoreau Street Depot (11am – 1pm)



Management

Commuters

Recreational

Signage

Bicycle Parking

Shared Parking

Technology

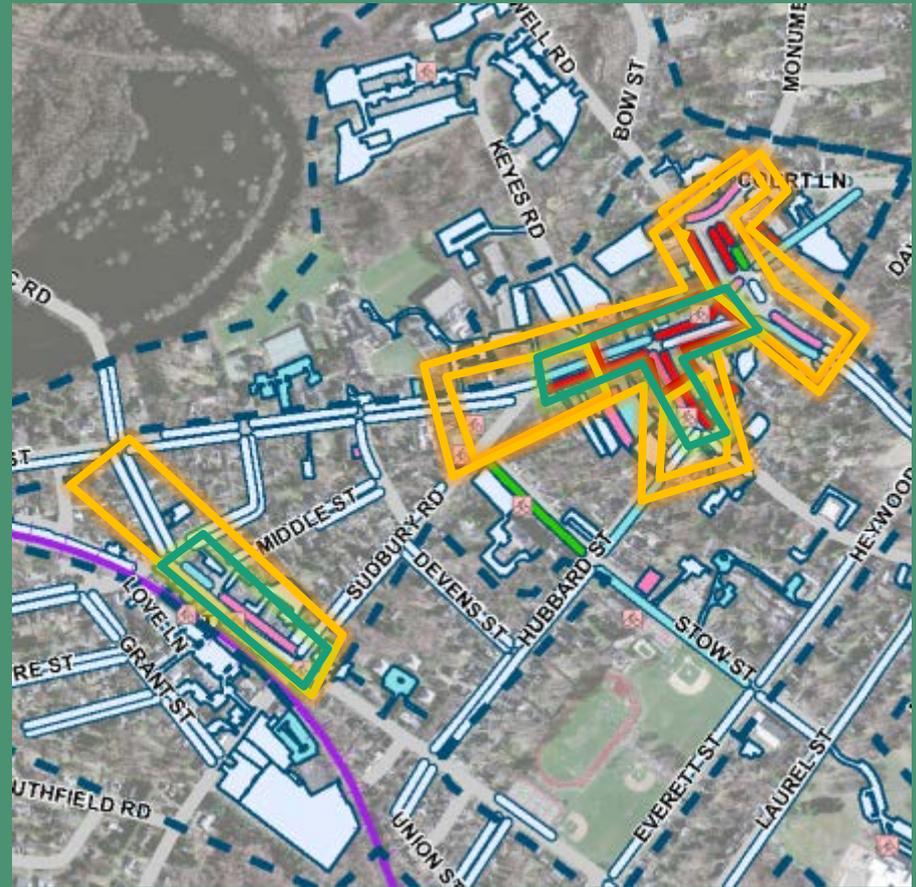
Eliminate Time Limits (or extend)



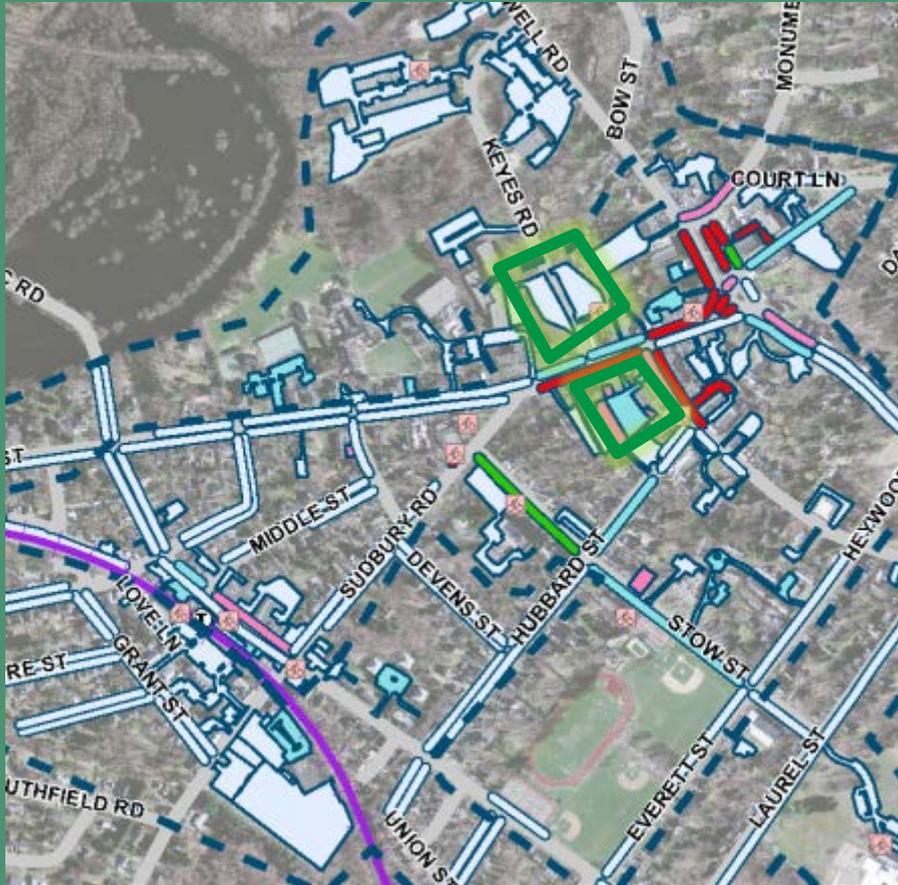
- 83% of merchants prefer 2 Hr. over 1 Hr. Limits
- Over 30% of customers stay over 1 hour
- 2/3 stay at least 30 minutes

Match price to demand

- Existing: \$0.50/hour for 1 hour
- One Meter Zone: \$1/hour, no time limit
- Two Meter Zones: \$1 and \$0.50 (or \$0.25), no time limit



Keep off-street parking free



- Use pricing on-street to foster behavior and create availability
 - Higher meter rates where demand is high (keep initial free period)
 - Better advertisement of free parking areas

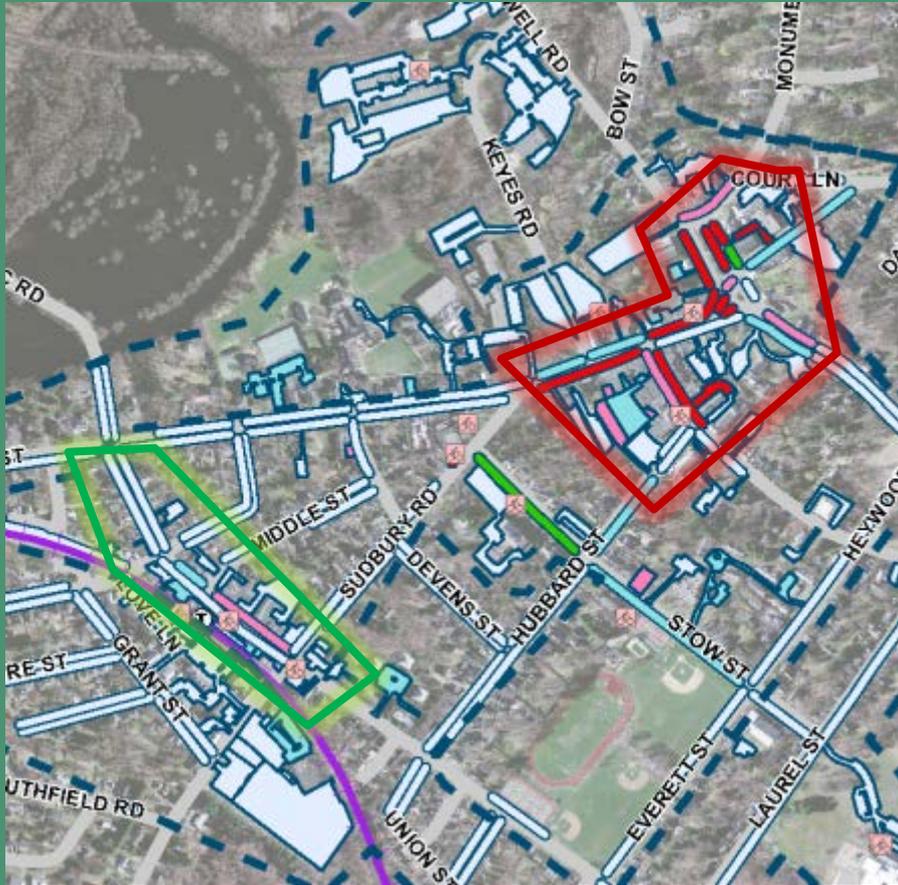


McIntire District
 Downtown District
 Waterfront District

Salem Parking General Parking

— Parking Lots — Meters: \$1.50 Hr.	— Parking Garages — Meters: \$0.75 Hr.	— Meters: \$0.50 Hr.
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Match span of service to demand



- Start and end later (10am-8pm)
- Vary enforcement hours to re-enforce desired behavior

Management

Commuters

Recreational

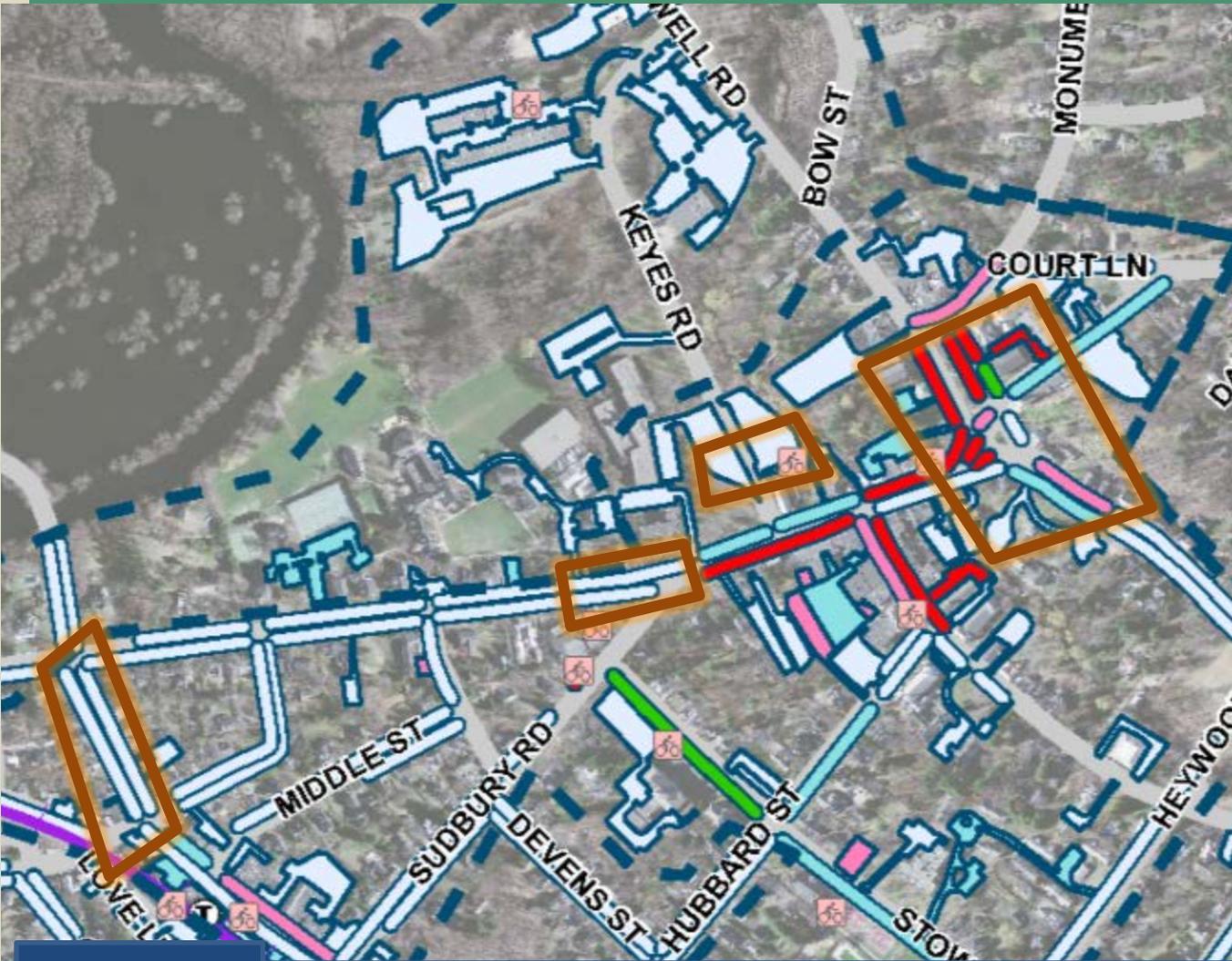
Signage

Bicycle Parking

Shared Parking

Technology

Extend Metered Areas



Identify areas for added metered parking

- Thoreau St
- Front of Keyes Rd Lot
- Monument Sq
- Library
- Others

Management

Commuters

Recreational

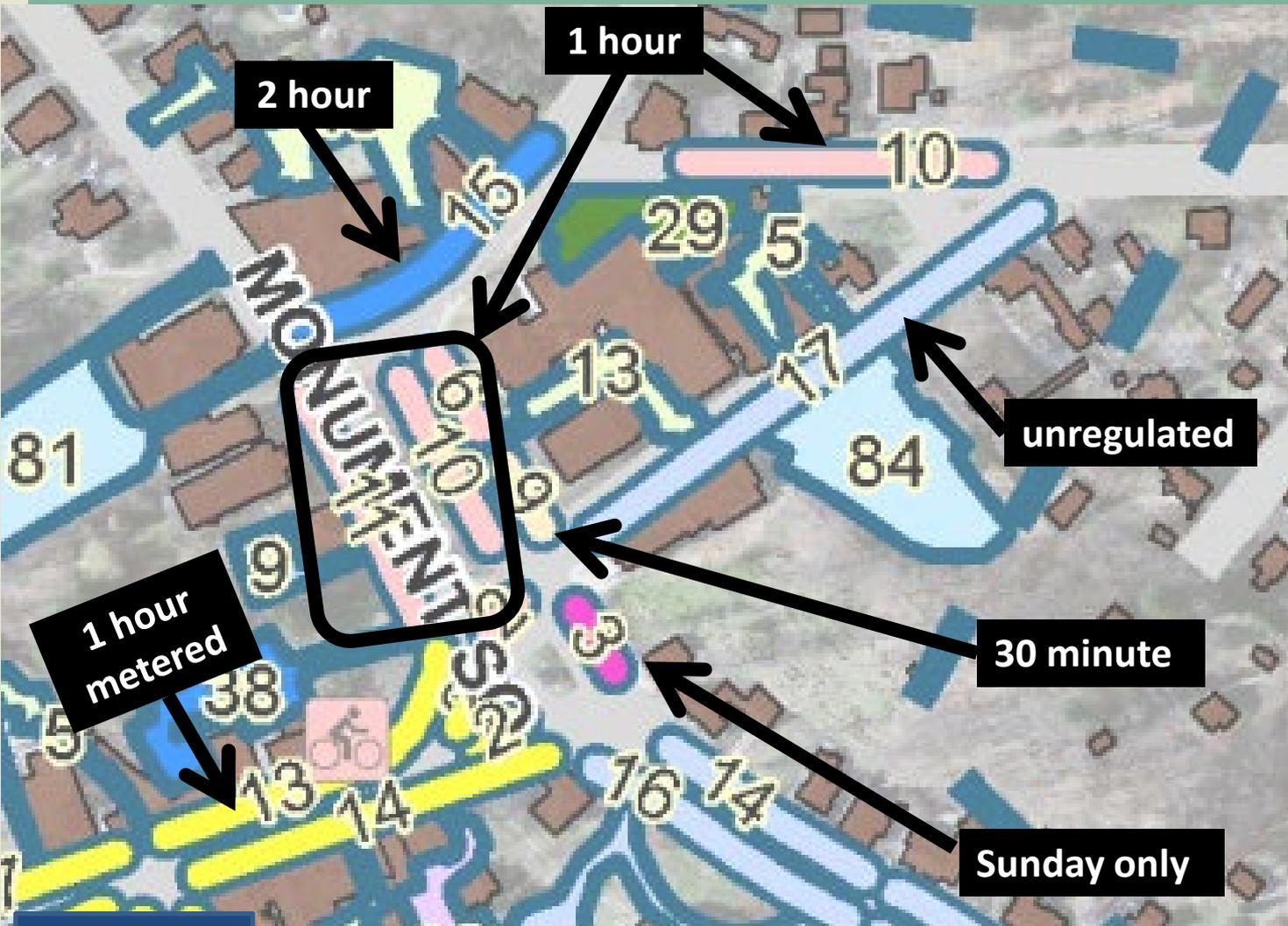
Signage

Bicycle Parking

Shared Parking

Technology

Keep it simple



Eliminate
confusing,
unnecessary
regulations

Management

Commuters

Recreational

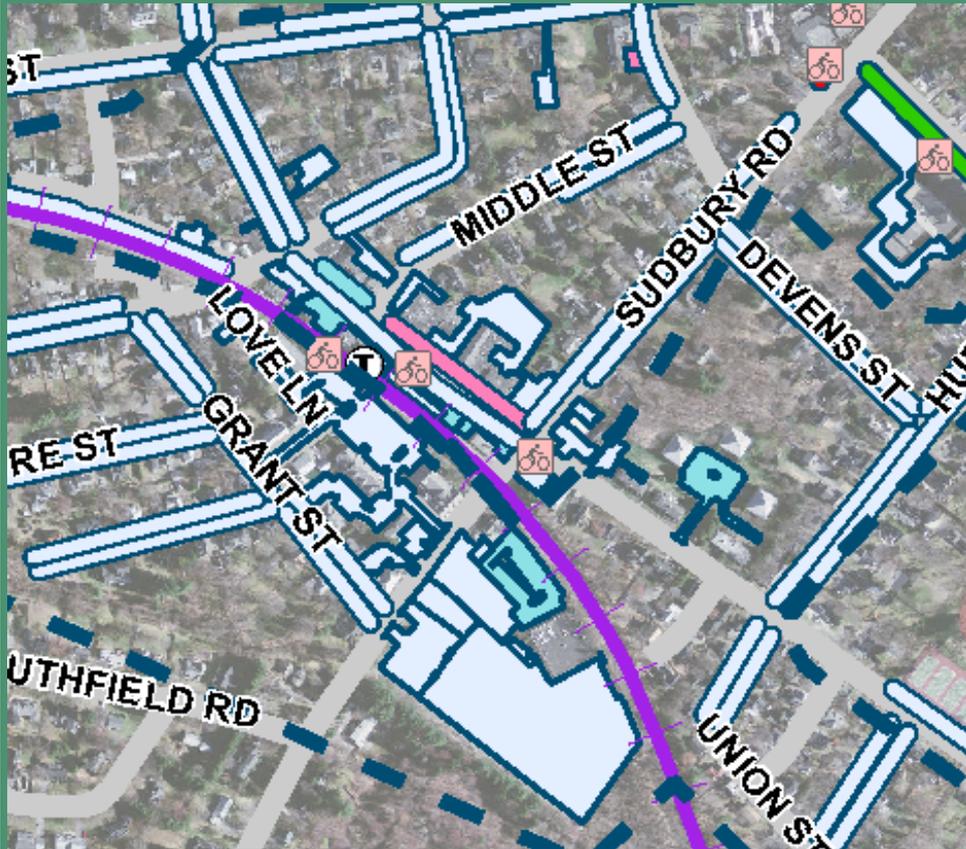
Signage

Bicycle Parking

Shared Parking

Technology

Parking Pricing Pilot



- Thoreau Street Depot
 - Eliminate time limits
 - Price commuter parking
 - Protect residential streets with extended time limit

Management

Commuters

Recreational

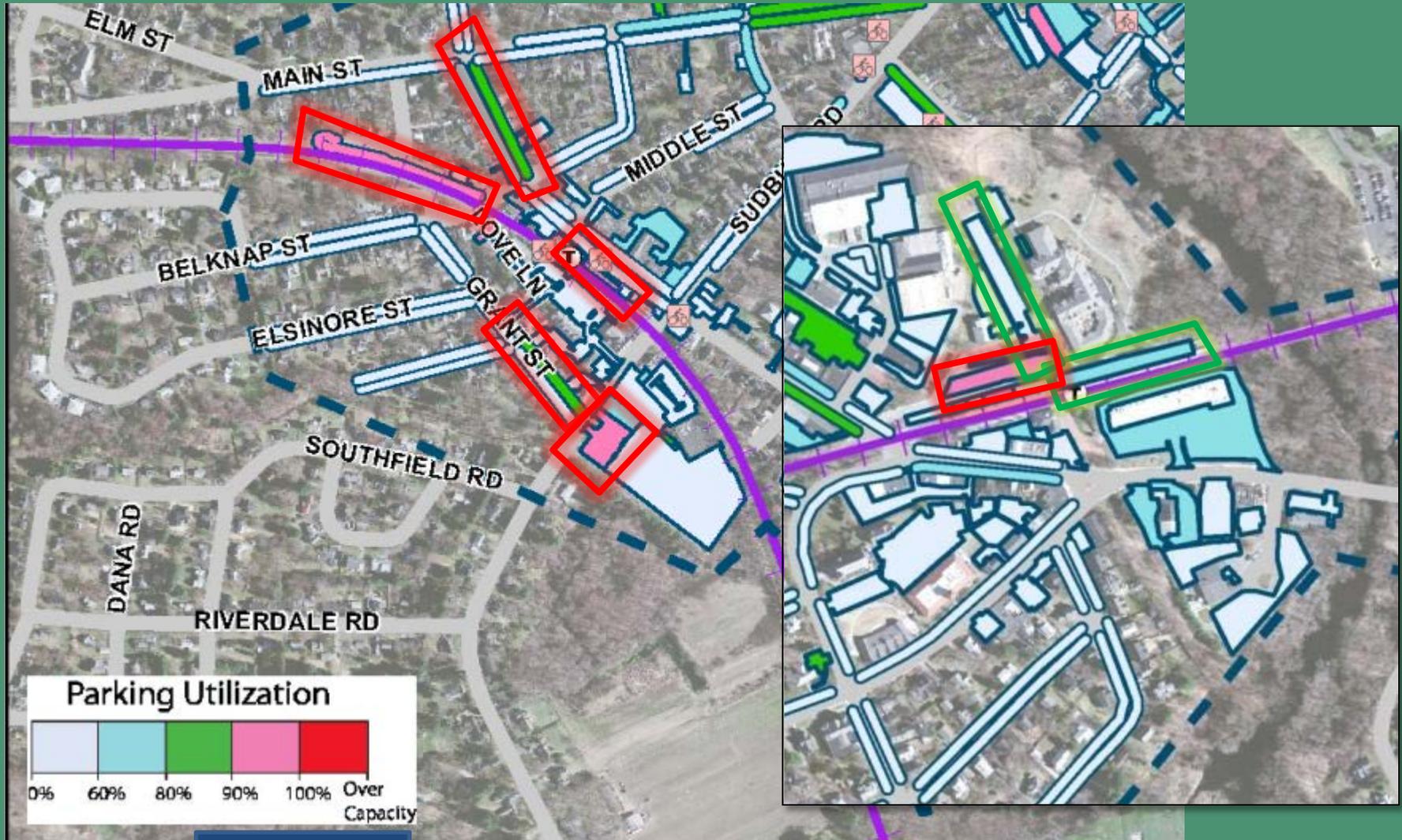
Signage

Bicycle Parking

Shared Parking

Technology

Key Finding: High demand for commuter parking



Management

Commuters

Recreational

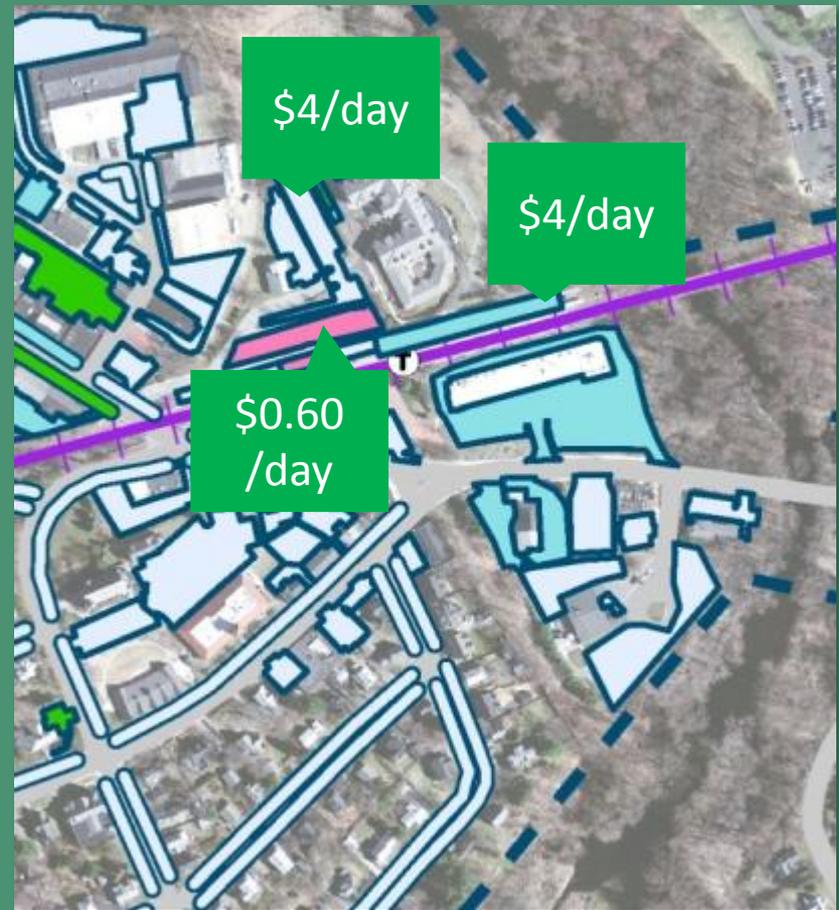
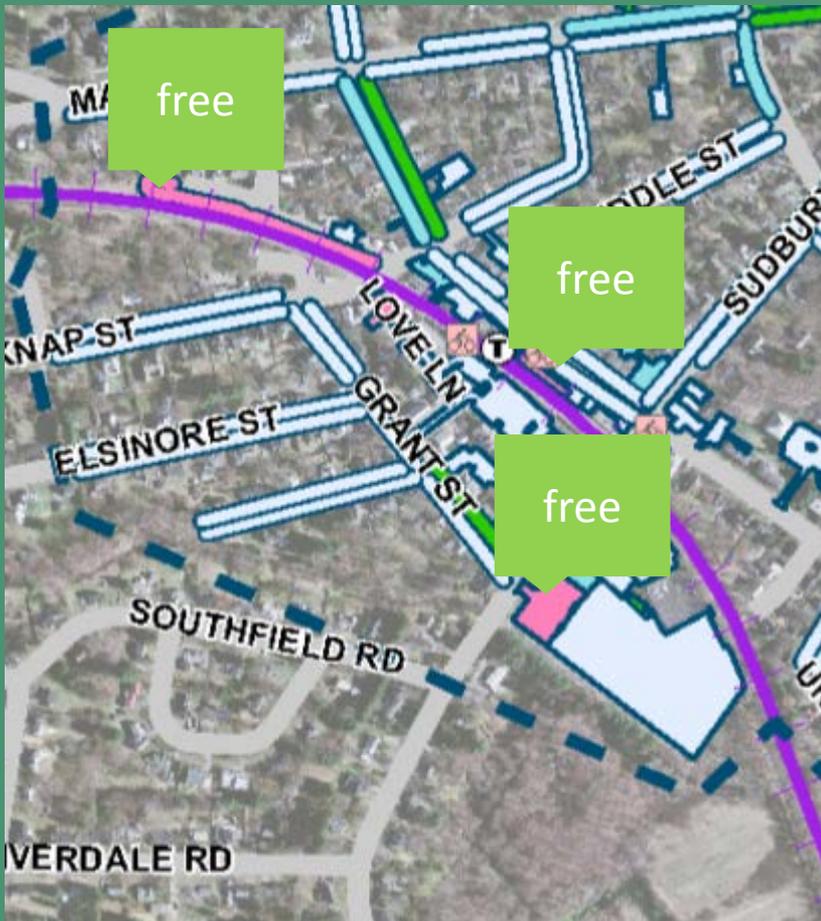
Signage

Bicycle Parking

Shared Parking

Technology

Key Finding: High demand for commuter parking



Management

Commuters

Recreational

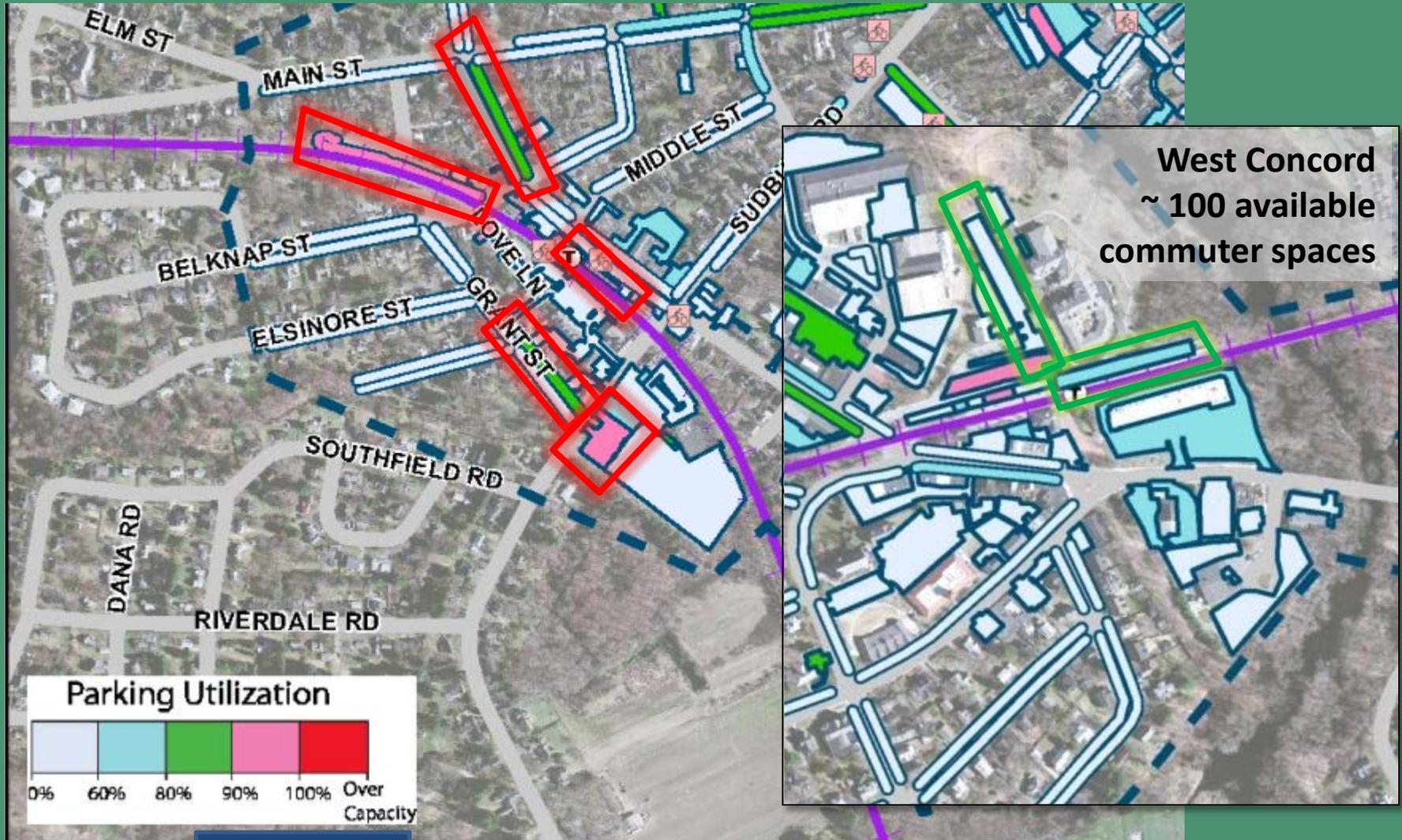
Signage

Bicycle Parking

Shared Parking

Technology

Manage demand with available supply



Management

Commuters

Recreational

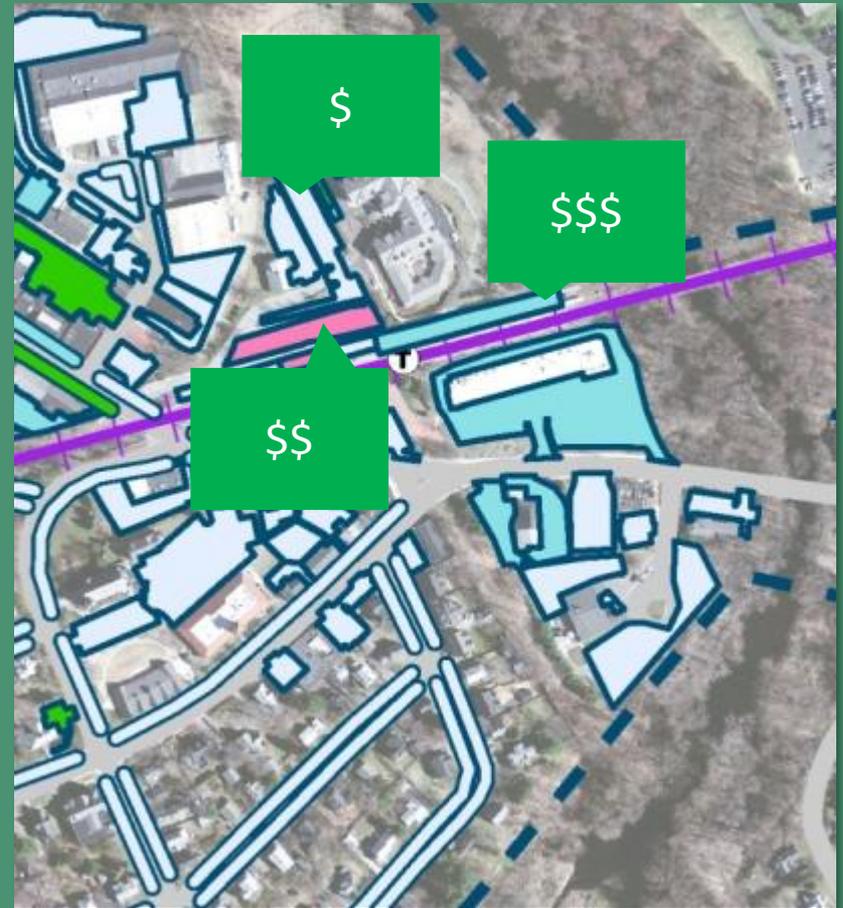
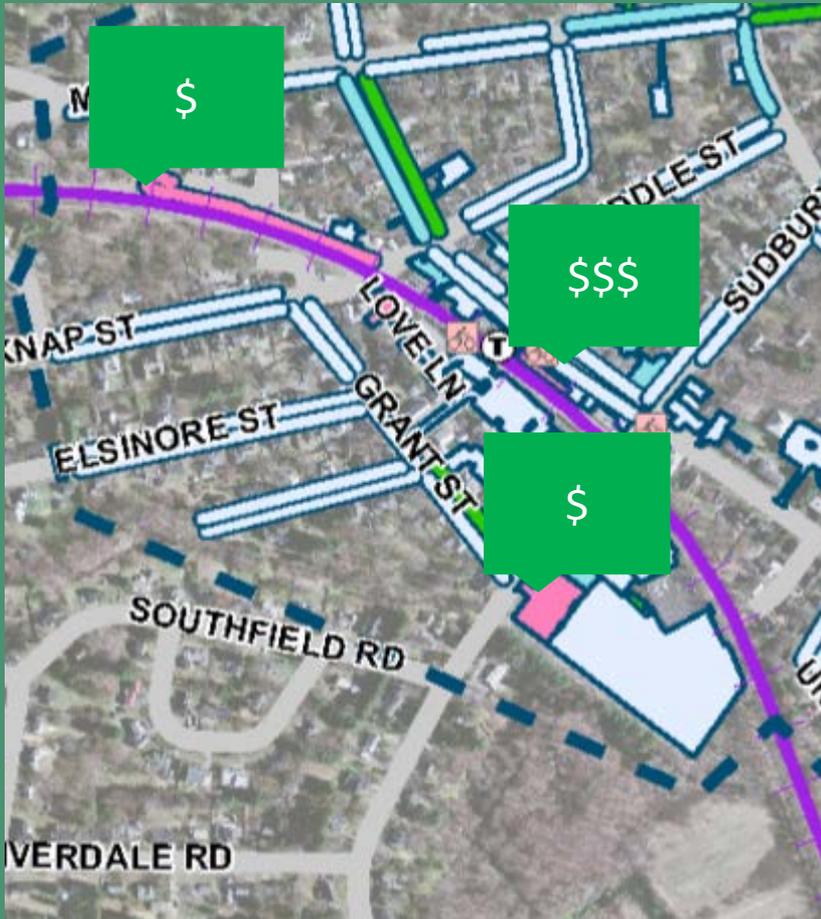
Signage

Bicycle Parking

Shared Parking

Technology

Key Finding: High demand for commuter parking



Management

Commuters

Recreational

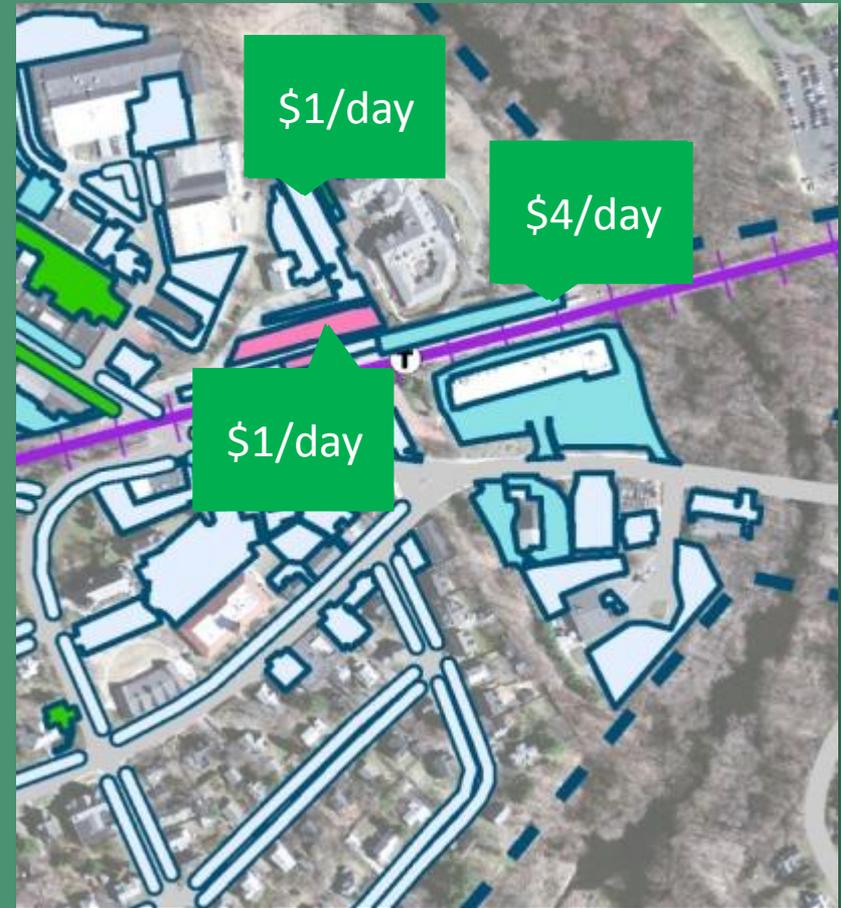
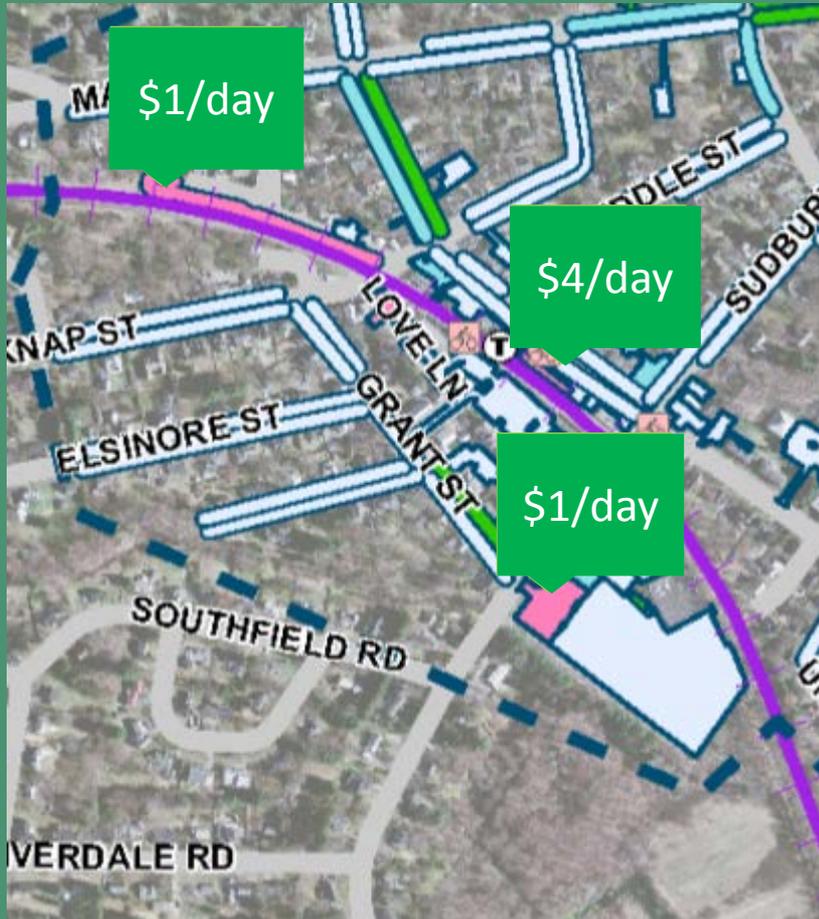
Signage

Bicycle Parking

Shared Parking

Technology

Key Finding: High demand for commuter parking



Management

Commuters

Recreational

Signage

Bicycle Parking

Shared Parking

Technology

Key Finding: Recreation field parking is at a premium



Management

Commuters

Recreational

Signage

Bicycle Parking

Shared Parking

Technology

Add access points and parking supply



Management

Commuters

Recreational

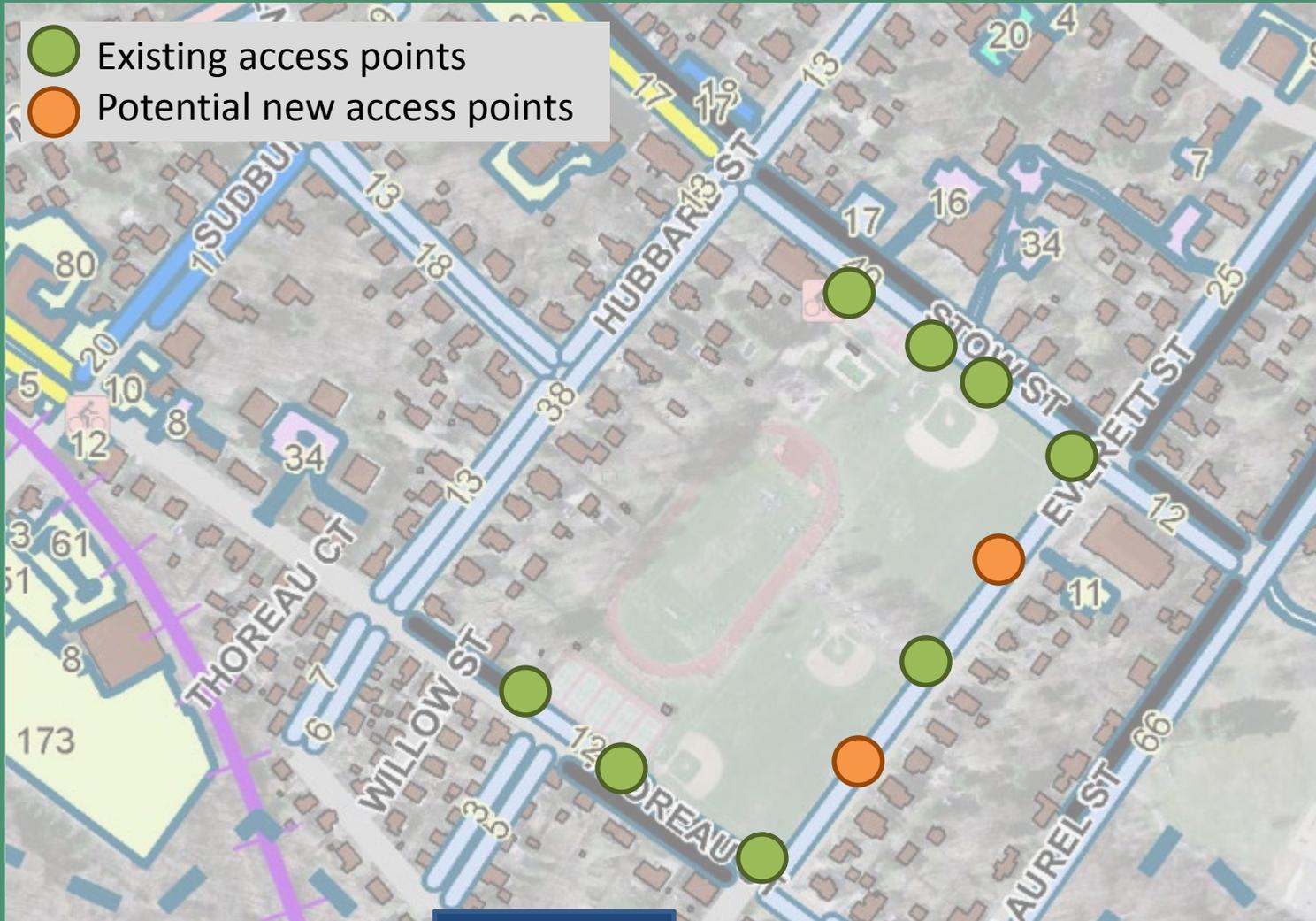
Signage

Bicycle Parking

Shared Parking

Technology

Access Points



Management

Commuters

Recreational

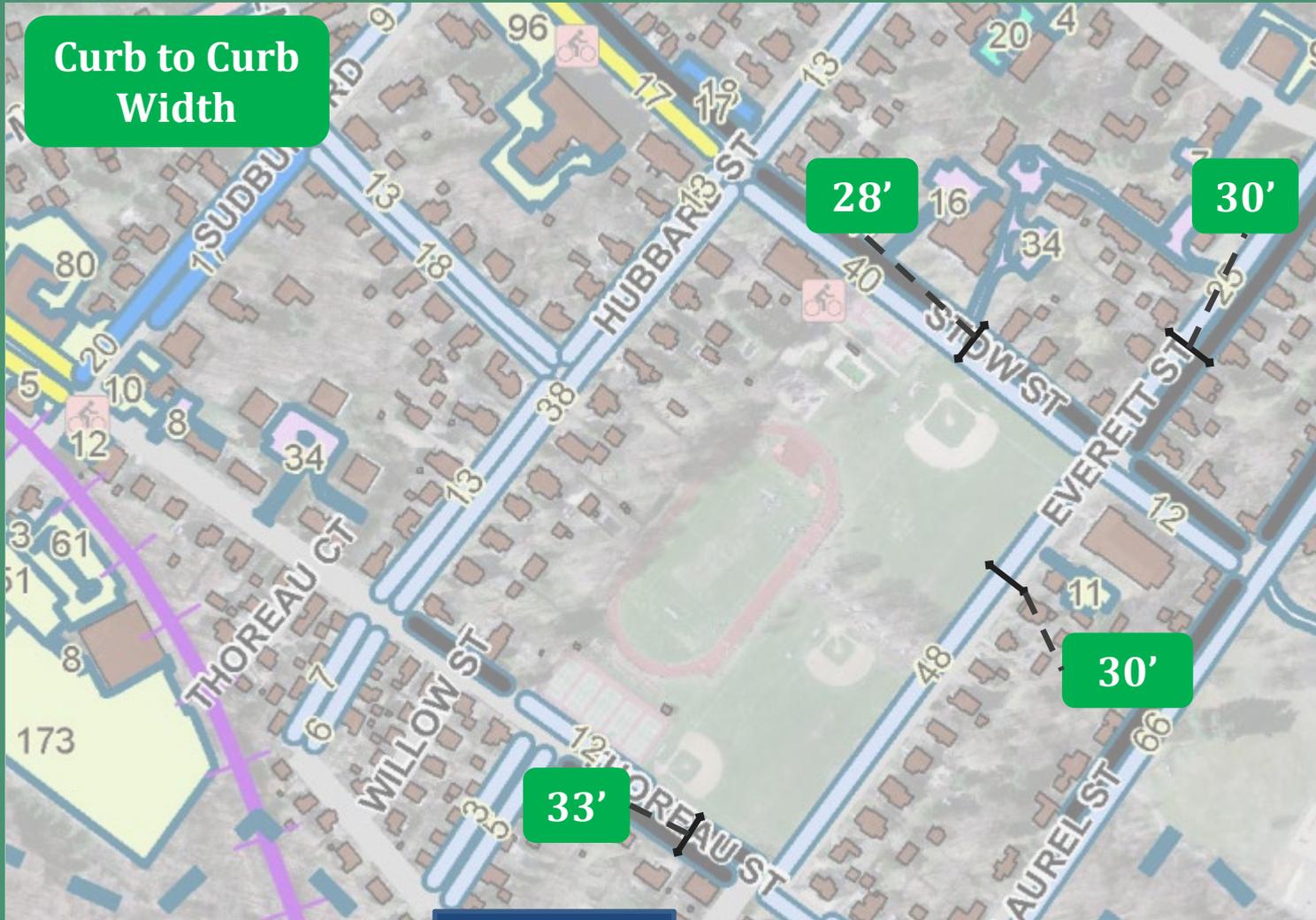
Signage

Bicycle Parking

Shared Parking

Technology

Additional Supply



Management

Commuters

Recreational

Signage

Bicycle Parking

Shared Parking

Technology

Yield Streets – 16 feet for yield



Sidewalk	30' (parking + two-way travel)	Sidewalk
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Key Finding: Signage is confusing (or non-existent)



Management

Commuters

Recreational

Signage

Bicycle Parking

Shared Parking

Technology

Introduce clear signage

- Define clear rules
- Identify free and long-term parking
- Guide pedestrians back to their car



Management

Commuters

Recreational

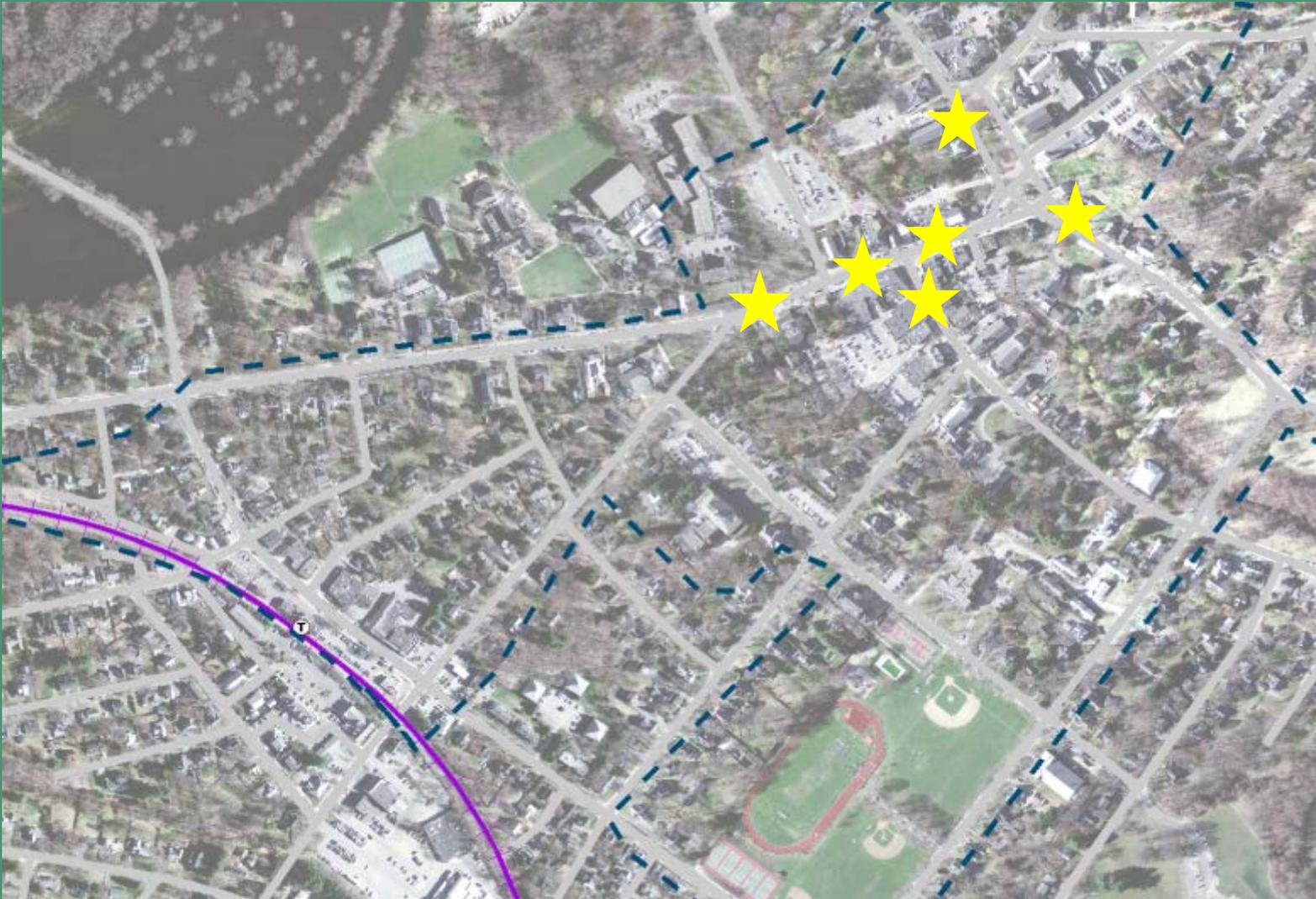
Signage

Bicycle Parking

Shared Parking

Technology

Wayfinding Signage



Management

Commuters

Recreational

Signage

Bicycle Parking

Shared Parking

Technology

More bicycle parking is needed



Management

Commuters

Recreational

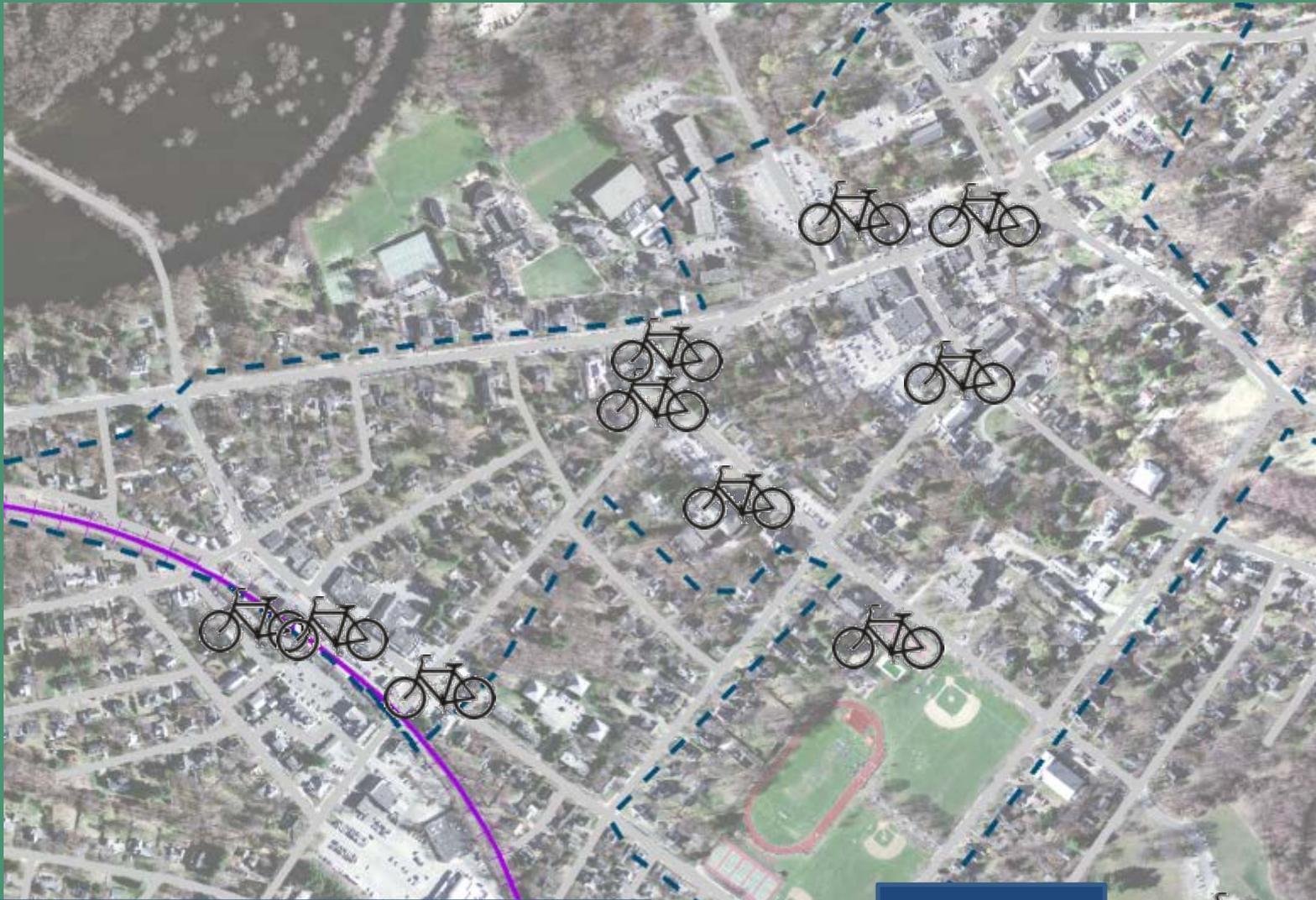
Signage

Bicycle Parking

Shared Parking

Technology

Existing Bike Racks



Management

Commuters

Recreational

Signage

Bicycle Parking

Shared Parking

Technology

Introduce appropriate types of bicycle parking



Management

Commuters

Recreational

Signage

Bicycle Parking

Shared Parking

Technology

Additional Bike Parking



Move short-term bike racks to the front of buildings



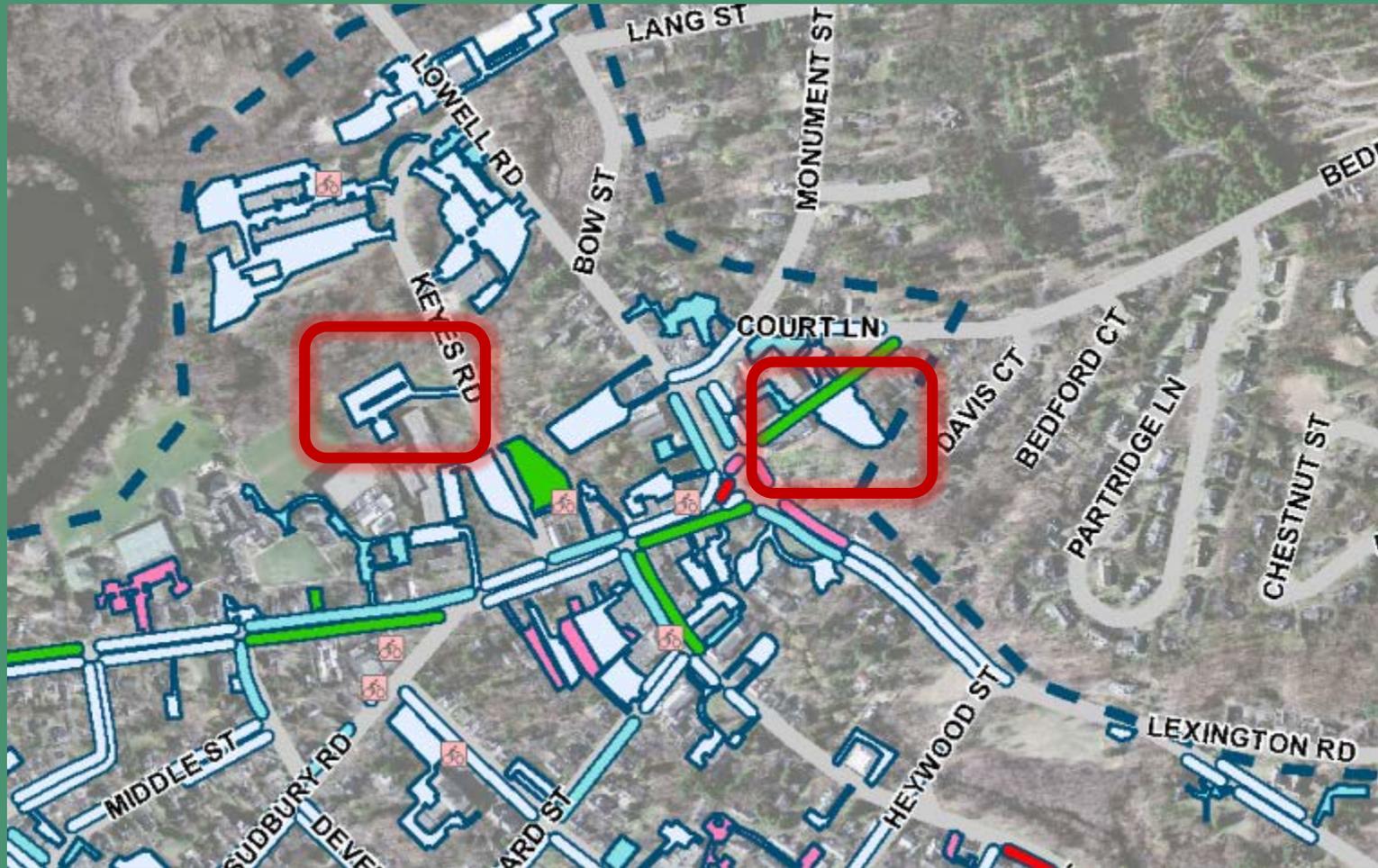
Add long-term bike racks to behind buildings and by rail station



On-street racks



Key Finding: Apply and Expand Concord's Shared Parking



Management

Commuters

Recreational

Signage

Bicycle Parking

Shared Parking

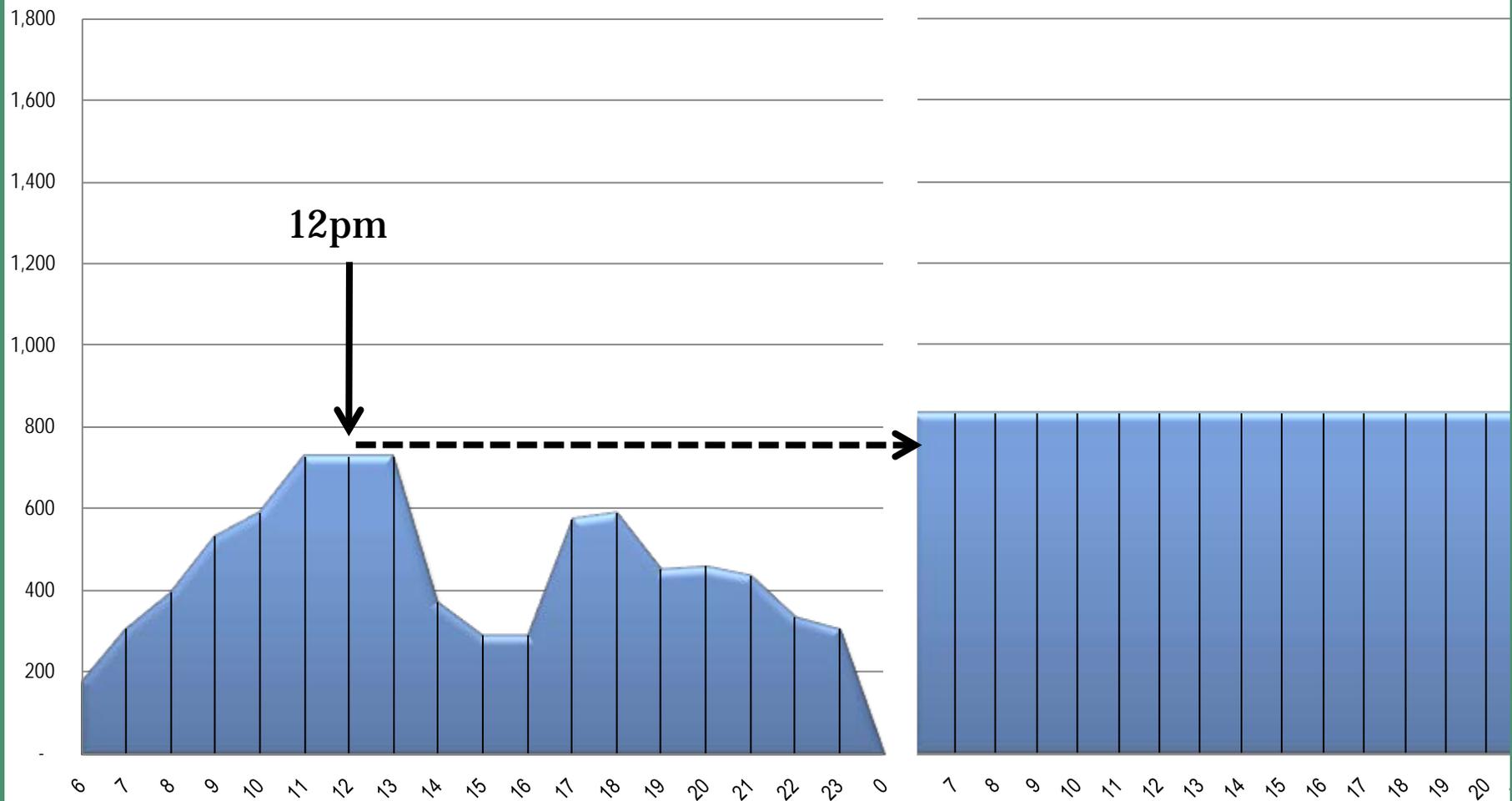
Technology

Shared Parking: Restaurant

(150k SF):

Real Demand

Unshared Supply



Management

Commuters

Recreational

Signage

Bicycle Parking

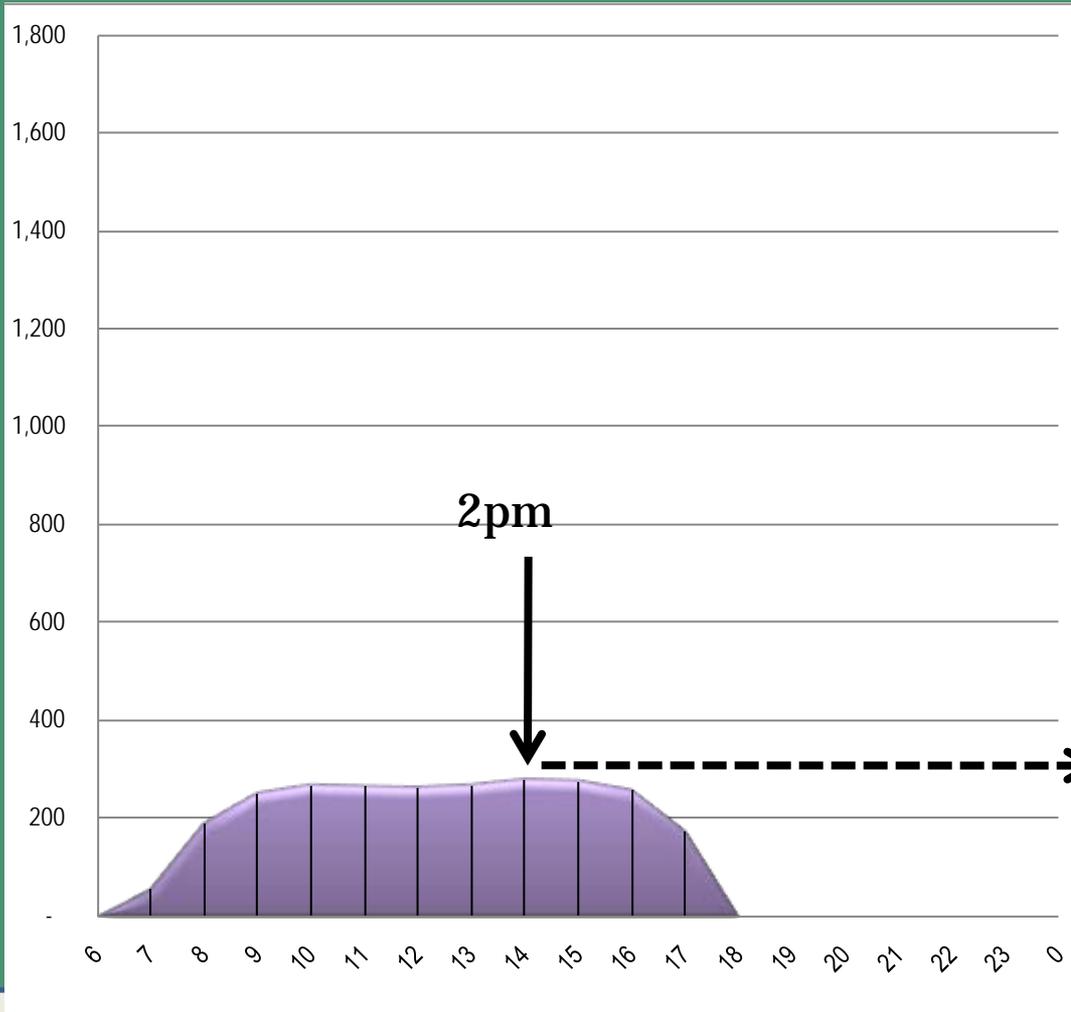
Shared Parking

Technology

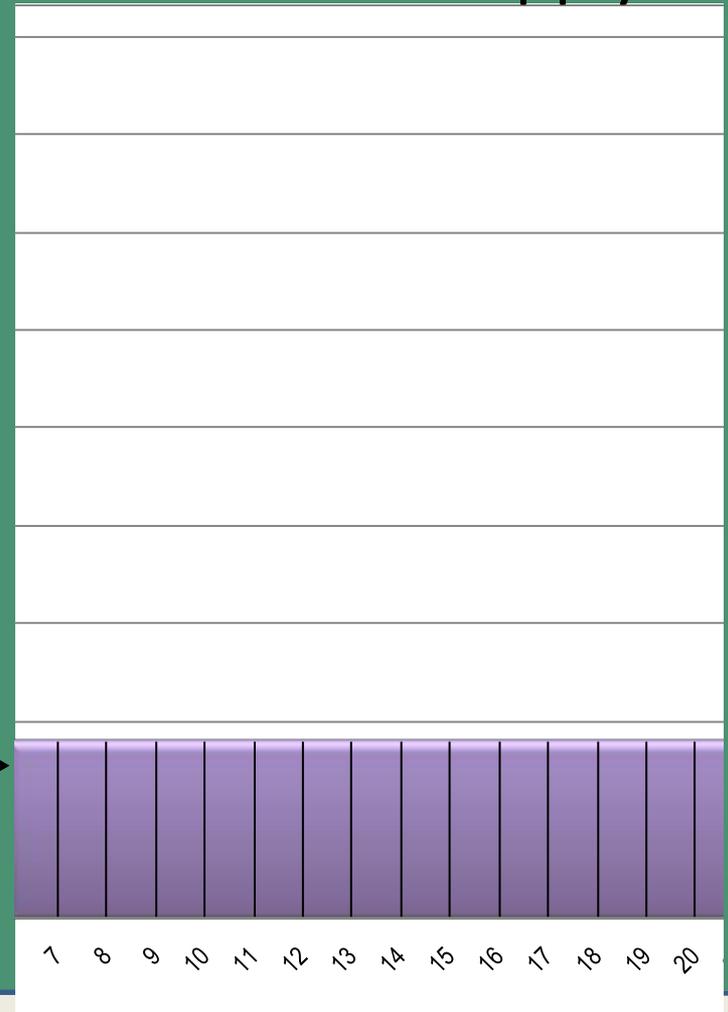
Shared Parking: Office

(150k SF):

Real Demand



Unshared Supply



Management

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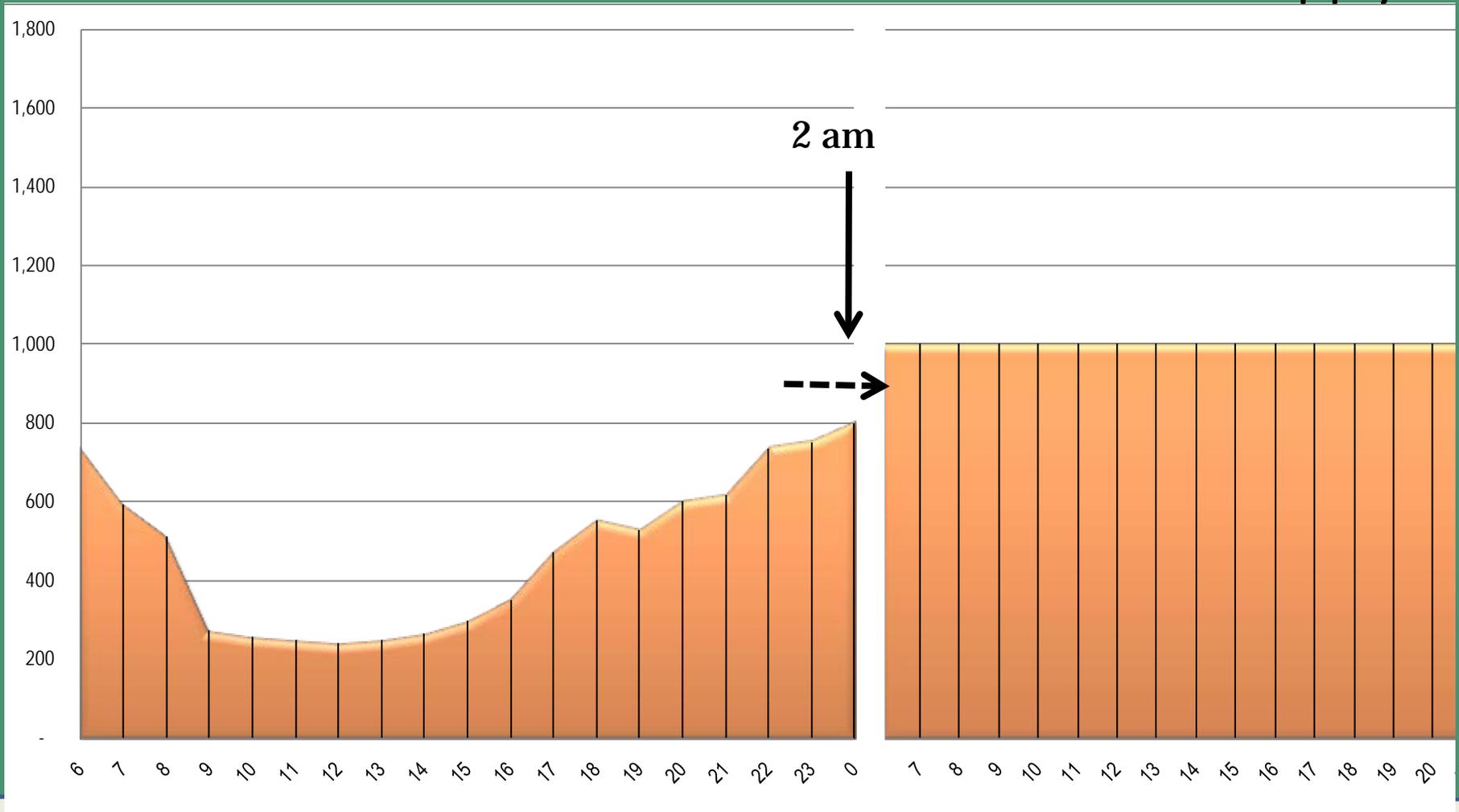
Technology

Shared Parking: Residential

(150k SF/1000 units):

Real Demand

Unshared Supply



Management

Commuters

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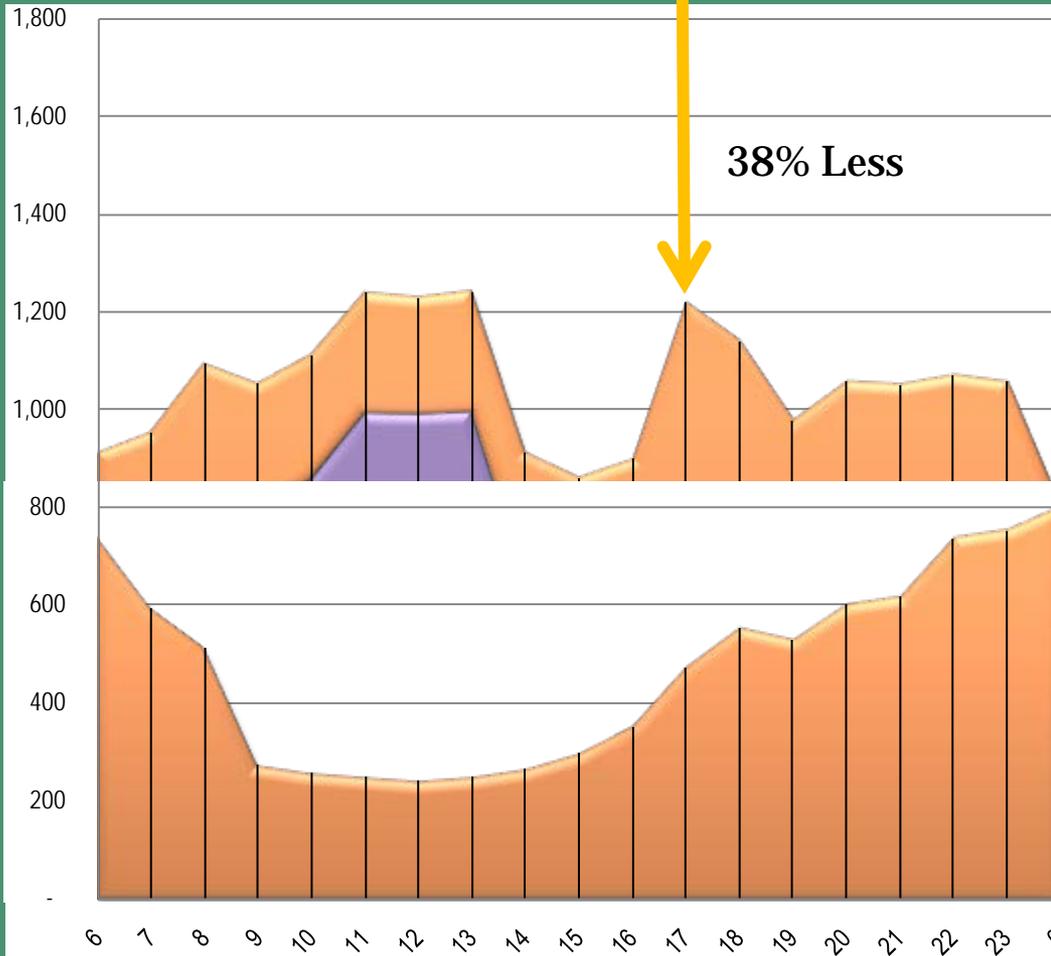
Signage

Bicycle Parking

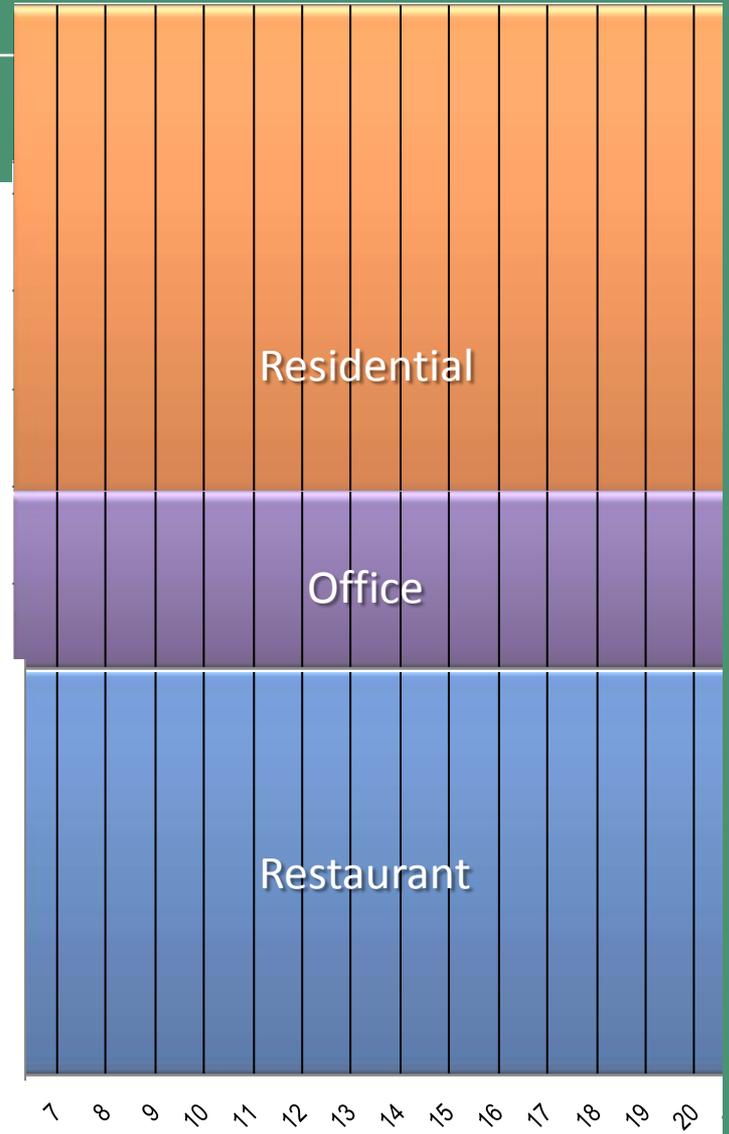
Shared Parking

Technology

Real Demand



Unshared Supply



Management

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Technology

Land Uses in Concord Center

Land Use	Square Feet	Percentage
Residential <ul style="list-style-type: none"> • Apartments, townhomes, condos 	309,092	15%
Retail/Commercial <ul style="list-style-type: none"> • Banks, shops, restaurants, performing arts, hotels, museums, etc. 	444,586	22%
Schools <ul style="list-style-type: none"> • Public and private 	120,634	6%
Office <ul style="list-style-type: none"> • Office, including municipal offices 	311,983	15%
TOTAL	2,051,308	

Management

Commuters

Recreational

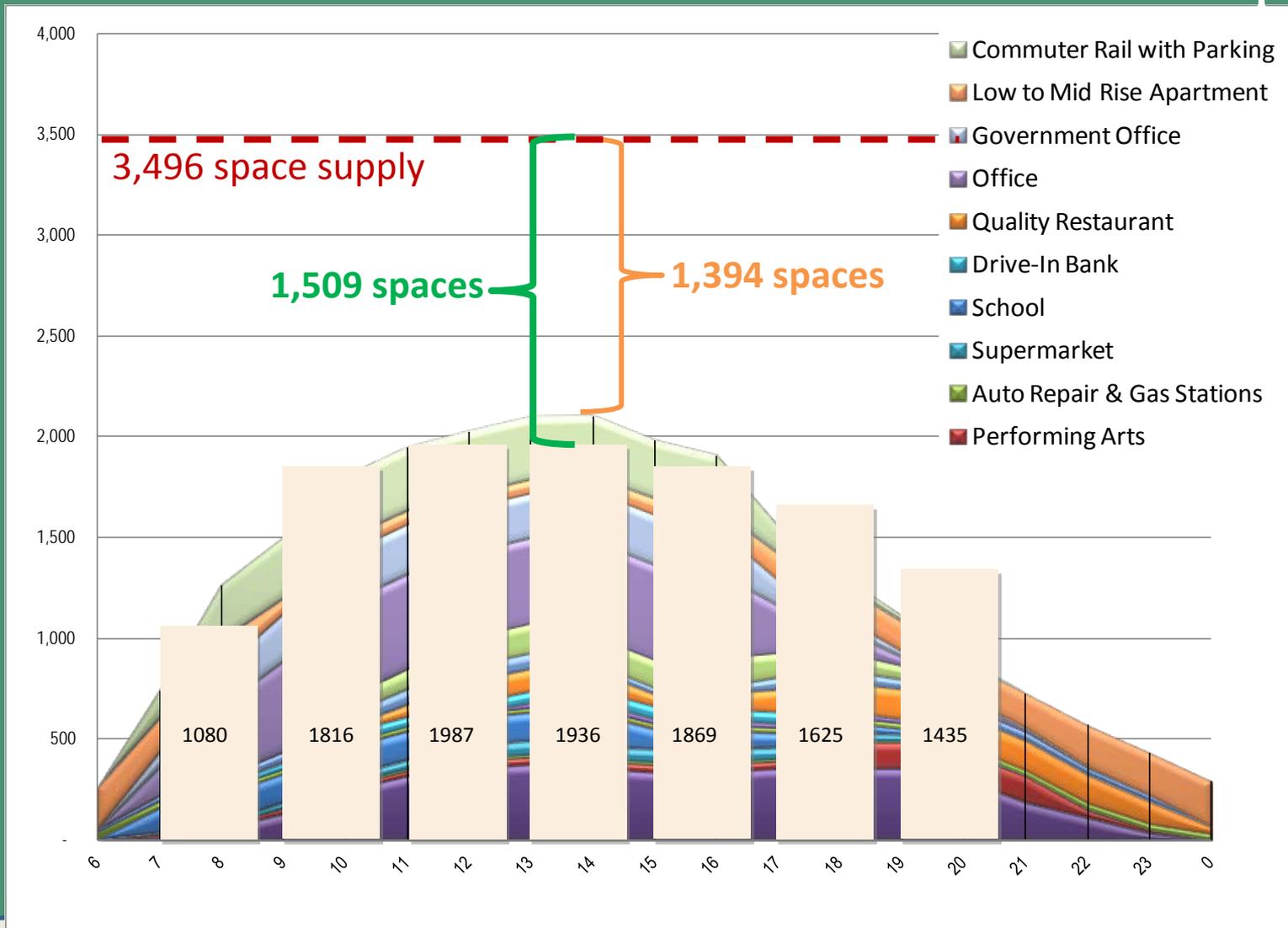
Signage

Bicycle Parking

Shared Parking

Technology

Update zoning code and implement shared parking



Management

Commuters

Recreational

Signage

Bicycle Parking

Shared Parking

Technology

Existing Walden Lot and Private Lots



Parking, Circulation, Curb Cuts



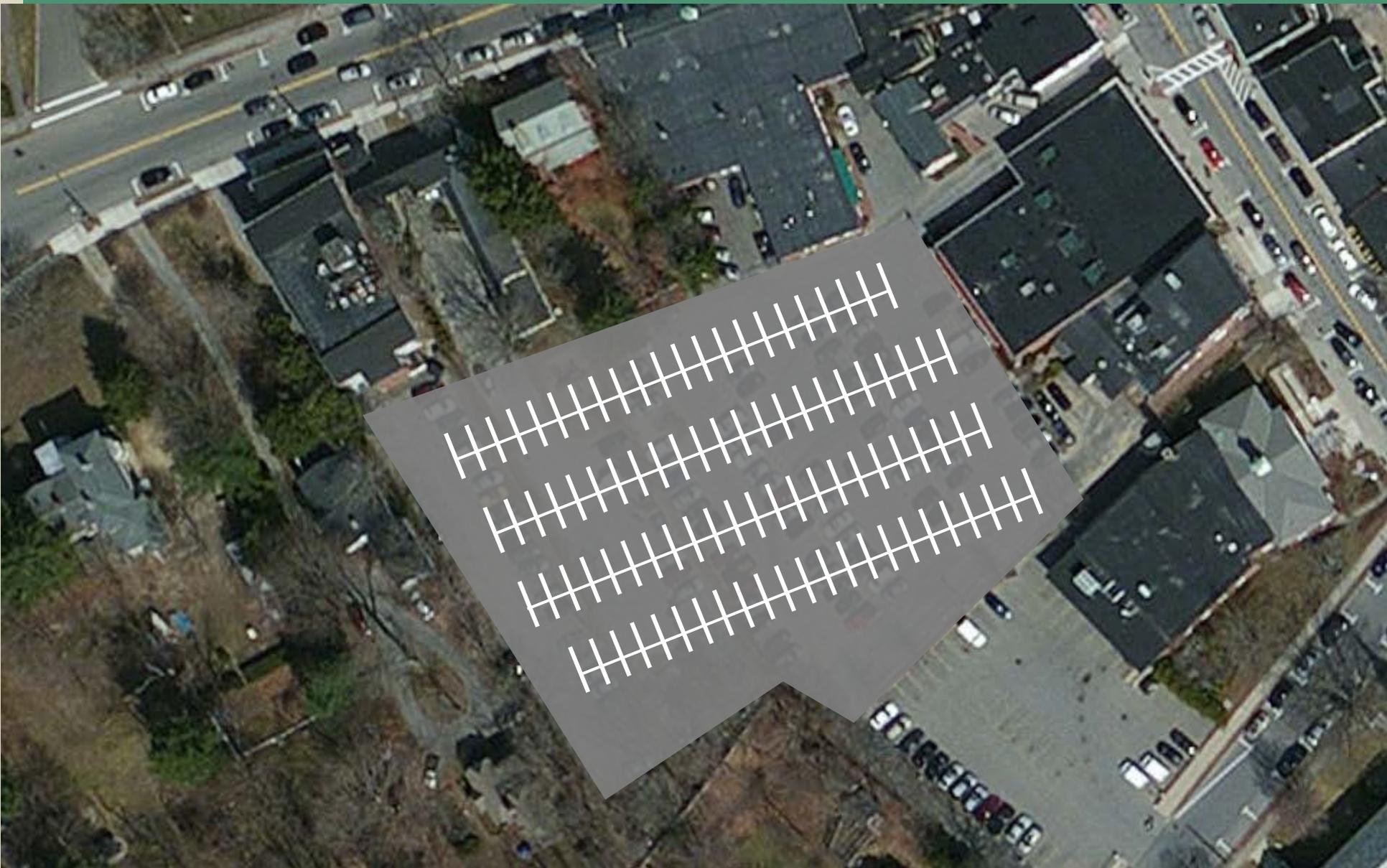
Shared Parking



Including Post Office, Introduce Pedestrian Walkway



Re-striping



Key Finding: Parking technology upgrade needed (long-term)



Management

Commuters

Recreational

Signage

Bicycle Parking

Shared Parking

Technology

Technology Options

SMART METERS

- Heads fit on existing meter bases and poles
- Benefits:
 - No need to walk back to your car
 - Easy to identify
 - Debit/credit card capabilities plus coins



Technology Options

MULTI-SPACE PAY AND DISPLAY

- One meter serves multiple spaces, user displays receipt on dashboard
- Benefits:
 - Increases revenue
 - Reduces operations and enforcement cost
 - More payment options



Technology Options

MULTI-SPACE PAY BY SPACE

- One meter serves multiple spaces
- Benefits:
 - Same as Pay and Display
 - No need to return to car
 - Easy incorporation of Cell Phone payment options



Management

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Recreational

Signage

Bicycle Parking

Shared Parking

Technology

Technology Options

MULTI-SPACE PAY BY SPACE

Lowell, MA

- 40 percent increase in collections
- 20 – 35 percent decrease in operations and enforcement costs



Pay by space post – Montreal
Image Credit: Flickr User [Solsken](#)

Management

Commuters

Recreational

Signage

Bicycle Parking

Shared Parking

Technology

Technology Options

PAY WITH CELL PHONE

- Motorists use cell phone to pay for space
- Benefits:
 - Cashless, card-less payment
 - Remote payment
 - Pay only for time used
 - Meter-expiration notifications via text message
 - Add time remotely





Management

Commuters

Recreational

Signage

Bicycle Parking

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Technology

Technology Options

IN-CAR METERS

- Motorists display paid time on device in car
- Benefits:
 - Users only pay for time used
 - Good for frequent parkers



Discussion
