

## **UPPER AFTON ROAD PROJECT SUMMARY OF ENGINEERING RECOMMENDATIONS**

### **Upper Afton Road Bicycle Lanes**

Report prepared: 5/26/2016

Open House: 3/3/2016

Public Hearing: 5/18/2016

Second Public Hearing: 6/1/2016

## **PROJECT**

Implementation of bicycle lanes on Upper Afton Road from Burns Avenue to McKnight Road.

Improvements to include the installation of dedicated bicycle lanes, pavement markings, bike lane signage, and other elements as described below.

## **PURPOSE**

The purpose of this project is to provide an improved east-west bicycle facility on Upper Afton Road, improving the bicycling environment as it relates to safety, accessibility, and connectivity.

### **I. INITIATING ACTION**

Ramsey County is planning a mill and overlay of Upper Afton Road between Burns Avenue and McKnight Road in the summer or fall of 2016. Chapter 9 of the Saint Paul Bicycle Plan identifies incorporating bicycle facilities into larger construction or maintenance projects as the most fiscally efficient way to implement bicycle facilities, and makes the recommendation to "Incorporate implementation of bikeways with routine maintenance projects whenever possible." To take advantage of the efficiencies associated with implementing bicycle facilities with existing maintenance projects, Public Works is proposing to implement bicycle facilities on Upper Afton Road as a component of the scheduled mill and overlay project.

The Ramsey County Pedestrian and Bicycle Plan identifies Upper Afton Road as a planned "County-wide Connector Corridor" for pedestrians and bicycles, and the Saint Paul Bicycle Plan recommends "in-street separated lanes" on Upper Afton Road within the project limits. Public Works is proposing to implement bicycle lanes in both directions (eastbound and westbound) between Burns Avenue and McKnight road. This is consistent with the recommendations made in the Bicycle Plan.

## II. PROPOSED IMPROVEMENTS

Upper Afton Road between Burns Avenue and McKnight Road is classified as a minor arterial roadway and a County State Aid Highway (CSAH). AADT within the project limits ranges from 2,025 to 6,275 vehicles per day. 85<sup>th</sup> percentile speeds of 38-39 MPH eastbound, and 37-42 MPH westbound were recorded within the project limits. The posted speed limit is 30 mph. The Saint Paul Bicycle Plan identifies this segment of Upper Afton as a component of the planned bicycle network, and identifies “in-street separated lanes” as the recommended facility type.

### Upper Afton Road - Burns to White Bear

Jurisdiction: Ramsey County (CSAH-35)

Street Width Typical: 36'

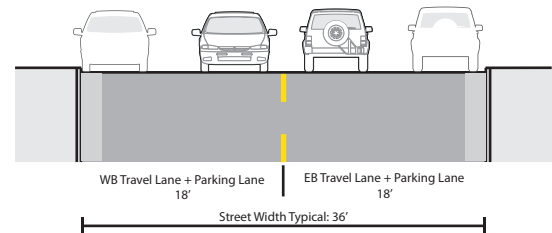
AADT: 2,025

85th Speeds: EB: 38 MPH, WB: 37 MPH

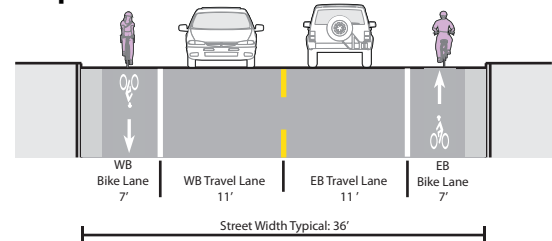
Elements proposed for implementation are:

- Restriping the roadway to add a 7' bicycle lanes in both directions
- Striping 11' vehicular travel lanes
- Installation of bike lane pavement markings and signage
- Removal of on-street parking on the north and south sides of Upper Afton between Burns and White Bear

### Upper Afton Rd: Burns to White Bear Existing



### Upper Afton Rd: Burns to White Bear Proposed



### Upper Afton Road - White Bear to McKnight

Jurisdiction: Ramsey County (CSAH-35)

Street Width Typical: 44'

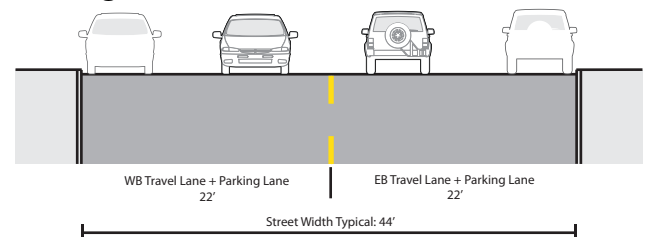
AADT: 3,050 - 6,275

85th Speeds: EB: 39 MPH, WB: 42 MPH

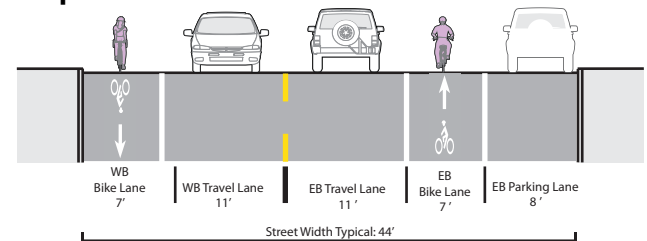
Elements proposed for implementation are:

- Restriping the roadway to add a 7' bicycle lanes in both directions
- Striping 11' vehicular travel lanes
- Installation of bike lane pavement markings and signage
- Removal of on-street parking on the north side of Upper Afton between White Bear and McKnight

### Upper Afton Rd: White Bear to McKnight Existing



### Upper Afton Rd: White Bear to McKnight Proposed



### **III. ALTERNATIVES**

Between Burns Avenue and White Bear Avenue, removing parking and installing a bicycle lane on only the north side of the roadway (westbound) was considered and proposed by Public Works. This was messaged to residents in a letter dated 4/28/2016. This recommendation was made for the following reasons:

- a) This alternative offered a significant safety improvement compared to the existing conditions
- b) The street system does not adhere to a traditional grid pattern and the resulting block segments between intersecting streets are long
- c) Upper Afton Road is a Ramsey County roadway, and there did not appear to be County-staff support for two-side parking removal between Burns Avenue and White Bear Avenue

After making this recommendation, however, Saint Paul Public Works had additional correspondence with Ramsey County Public Works staff, and concluded that parking removal on the north and south sides of Upper Afton Road between Burns Avenue and White Bear Avenue could be an opportunity. As a result, Saint Paul Public Works is now proposing to install bike lanes on both sides of Upper Afton Road between Burns Avenue and McKnight Road. Bicycle lanes in both directions will provide people bicycling with a greater degree of separation from vehicular traffic as well as a dedicated space to operate within the roadway. This is consistent with the recommendations of the Saint Paul Bicycle Plan, and will improve safety conditions while addressing a critical gap in the existing bicycle network.

This updated proposal was presented at the Upper Afton City Council Public Hearing on 5/18/2016. At the Public Hearing, the City Council voted to amend the resolution to include bike lanes and parking removal on both sides of Upper Afton Road between Burns Avenue and White Bear Avenue. Because this recommendation is different than was messaged in the Public Hearing noticed dated 4/28/2016, the City Council delayed action on the resolution for bike lanes on Upper Afton Road until June 1, 2016, and Public Works mailed an additional notification detailing the new Public Hearing date and updated proposal.

Between White Bear Avenue and McKnight Road, parking removal is proposed for the north side of Upper Afton Road. Removing parking from the south side of Upper Afton Road was also examined, but was ultimately rejected to preserve parking capacity adjacent to the recreational fields located on the south side of Upper Afton between Ruth Street and Winthrop Street. Since low parking utilization was measured on both the north and south sides of Upper Afton Road, the data does not suggest a strong existing demand for parking on the north side of the roadway for this segment.

### **IV. POSITIVE BENEFITS**

The City's Comprehensive Plan and Bicycle Plan strongly support the development of a multi-modal transportation system. Both plans recommend employing a complete streets approach to planning the transportation system, and promote the development of a complete and connected network of bicycle facilities thorough the city.

The project as proposed promotes multi-modal utilization of the roadway, providing a dedicated space for people using bicycles along Upper Afton Road while allowing for important connections to existing bicycle facilities on Ruth Street, McKnight Road, the Battle Creek Trail, and to the nearby Samuel Morgan and Indian Mounds Regional trails west of U.S. 10. As the only street between I-94 and U.S. 10 to successfully navigate the area's disjointed street grid and provide access across Battle Creek, Upper Afton Road is a critical link for facilitating east-west bicycle on the East Side. When paired with existing and planned bicycle infrastructure, the improvements proposed establish the foundation for a complete and connected bikeway system, and allow for bicycling to exist as a practical and feasible means of transportation in Saint Paul.

The posted speed limit on Upper Afton Road is 30 MPH. Speed studies performed on Edgerton recorded 85<sup>th</sup> percentile speeds of 38-39 MPH eastbound, and 37-42 MPH westbound within the project limits. Narrowing vehicular travel lane widths as proposed may encourage slower speeds, fostering a safer and more accessible roadway for all users. With AADT ranging from 2,025 to 6,275, implementing in-street separated lanes to separate bicycle and vehicular traffic will increase the safety of people bicycling on Upper Afton Road.

## **V. ADVERSE EFFECTS**

Normal issues relative to implementing infrastructure improvement projects will be present. Those issues include, but may not be necessarily limited to, noise, dust, and general disruptions to vehicular traffic.

To accommodate the installation of bicycle facilities, on-street parking removal is proposed for the north and south sides of Upper Afton Road between Burns Avenue and White Bear Avenue, and the north side of Upper Afton between White Bear Avenue and McKnight Road. To capture demonstrative parking demand, Public works conducted ten parking occupancy counts at representative time periods along Upper Afton Road (weekday early morning, midday, evening, and Saturday midday and evening).

Existing legal parking capacity on Upper Afton Road between Burns Avenue and McKnight Road is estimated at 565 spaces, and capacity following the implementation of bicycle lanes is estimated at 160 spaces (between White Bear Avenue and McKnight Road only). The highest observed parking utilization measured 45-parked vehicles between Burns and McKnight (Saturday midday, 11 am - 1 pm), with a mean parking utilization of 29 vehicles across the ten counting periods. The parking occupancy data is attached in the **Appendix** of this document.

## **VI. TIME SCHEDULE**

It is anticipated that the bicycle improvements as proposed will be installed concurrent with Ramsey County's planned mill and overlay on Upper Afton Road, scheduled for summer or fall 2016. This process is anticipated to last approximately ten days.

## **VII. COST ESTIMATE**

Implementation of bicycle lanes and lane reconfiguration within the limits of the mill and overlay will incur little additional cost beyond the amount already budgeted for resurfacing.

## **VIII. SOURCE OF ADDITIONAL INFORMATION**

For additional information, please contact:

Luke Hanson, Transportation Planning and Safety Division  
Email: [Luke.Hanson@ci.stpaul.mn.us](mailto:Luke.Hanson@ci.stpaul.mn.us)  
Phone: 651-266-6146

## **IX. SUMMARY AND RECOMMENDATIONS**

The Department of Public Works believes the project submitted herein to be necessary and feasible. The Department's Engineering Recommendation is for approval of the project as proposed.

# Appendix

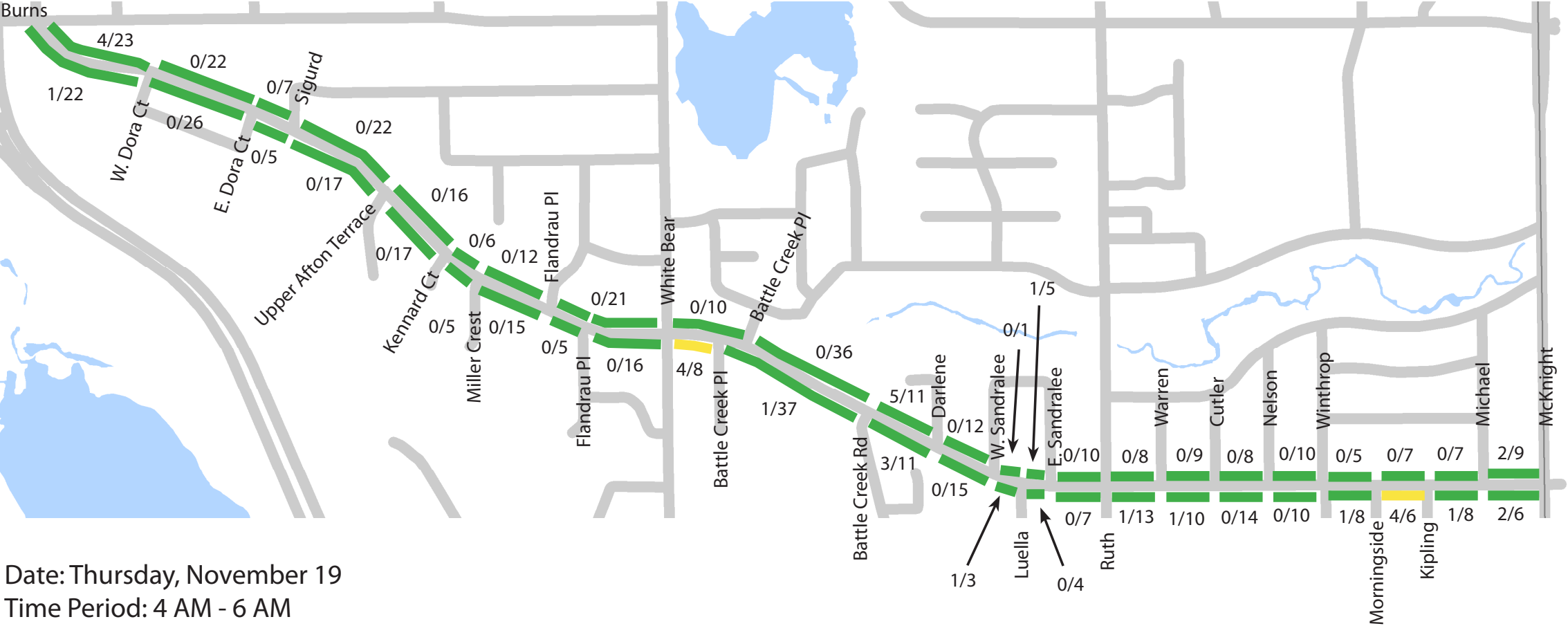
Attached:

1. Upper Afton Road Parking Occupancy Count Results
2. Upper Afton Road Project Map
3. Upper Afton Road Project Cross-Sections

# Existing Conditions: Upper Afton Rd



Date: Wednesday, November 18  
Time Period: 4 AM - 6 AM



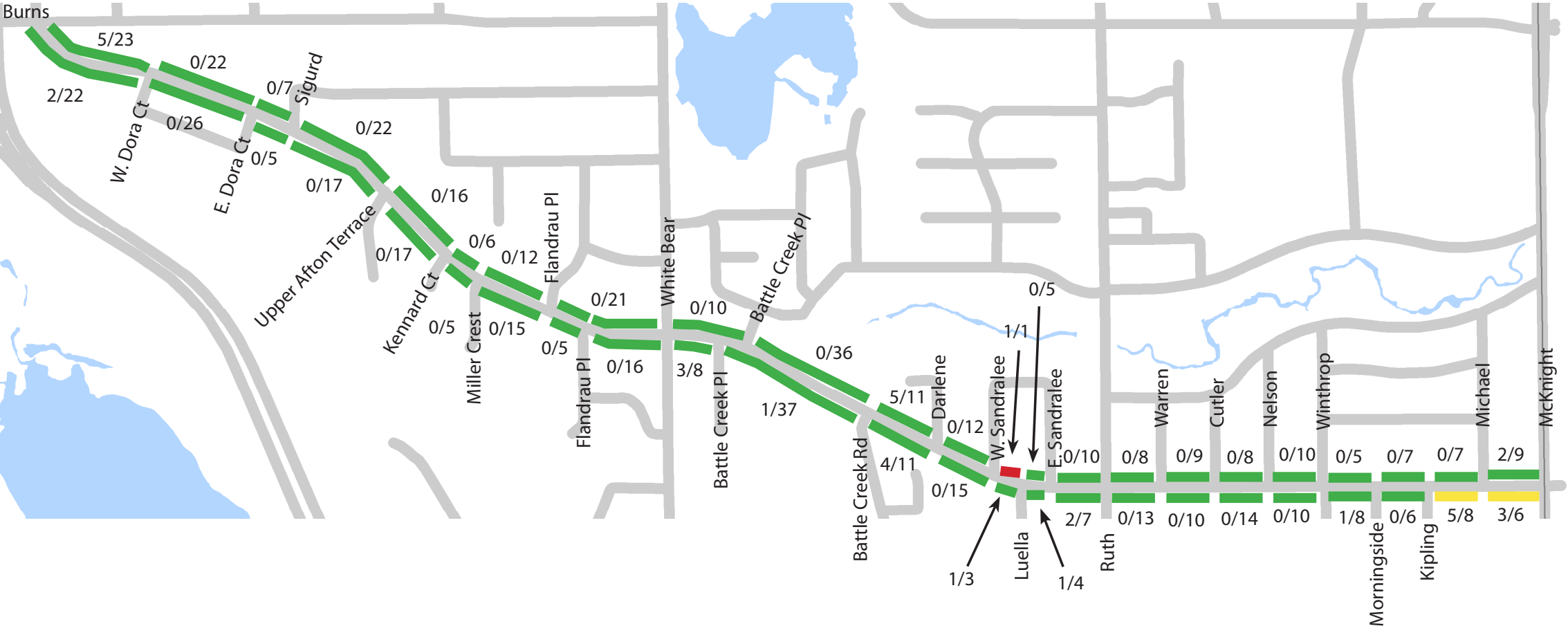
## Upper Afton Rd Parking Counts: Weekday Early Morning (4 AM - 6 AM)

### Legend

- Observed Parking Utilization
- Signed "No Parking"
  - 0 - 49%
  - 50 - 74%
  - 74 - 100+%

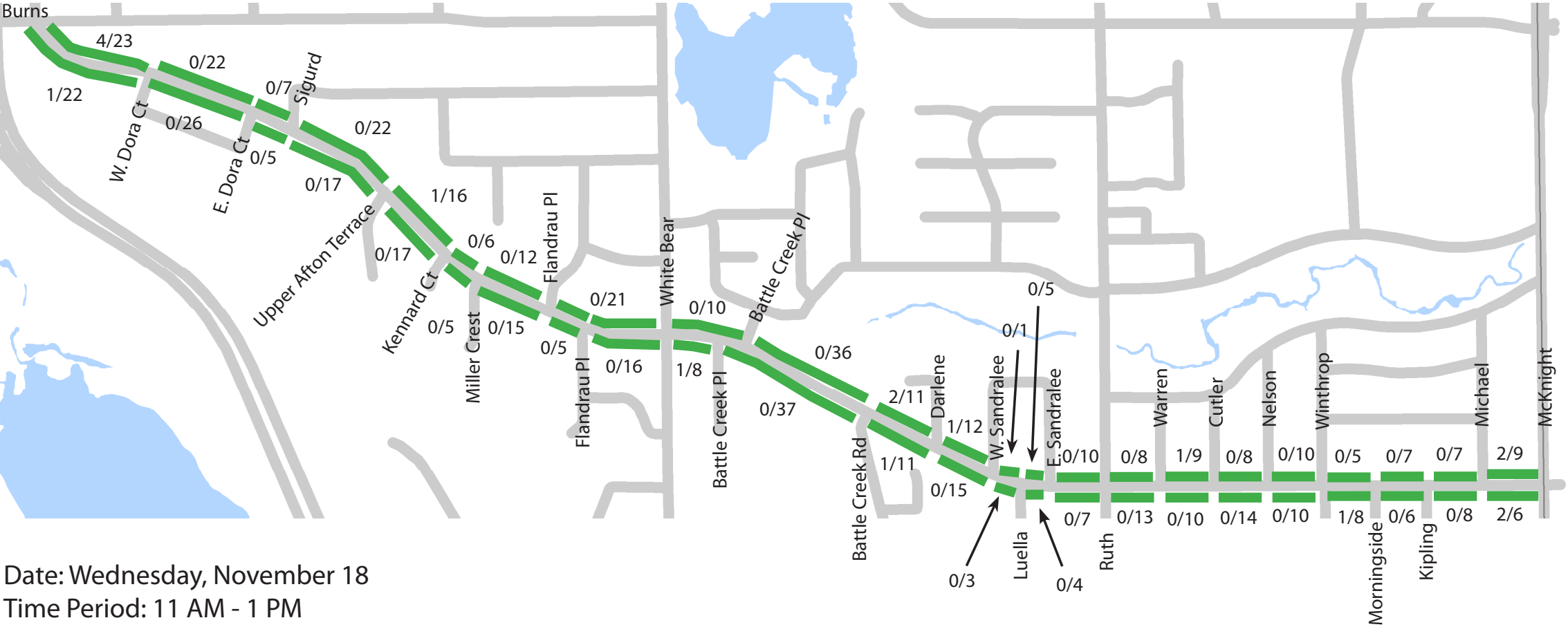
Example: 8/11 =  
Observed Parked Cars /  
Estimated Legal Parking Capacity  
  
(Observed parking utilization may exceed estimated legal capacity)

Date: Thursday, November 19  
Time Period: 4 AM - 6 AM





Date: Tuesday, November 17  
Time Period: 11 AM - 1 PM



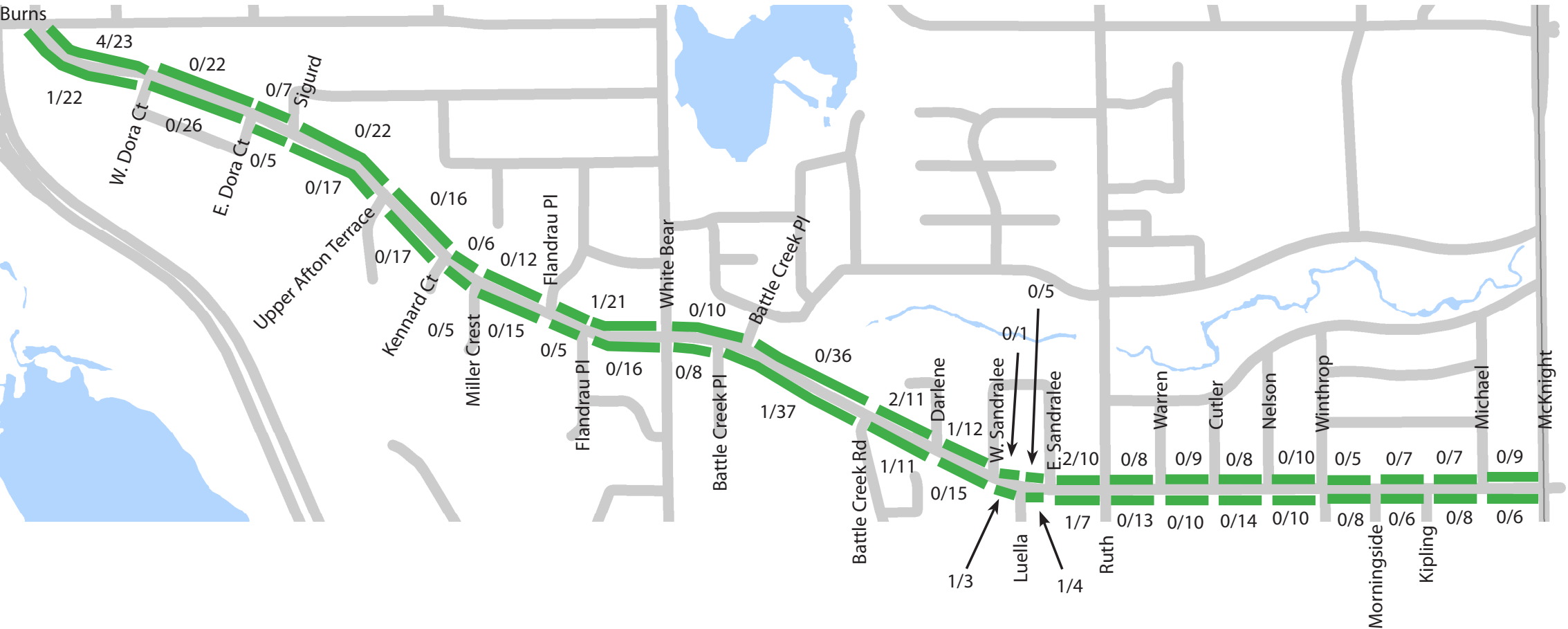
## Upper Afton Rd Parking Counts: Weekday Midday (11 AM - 1 PM)

### Legend

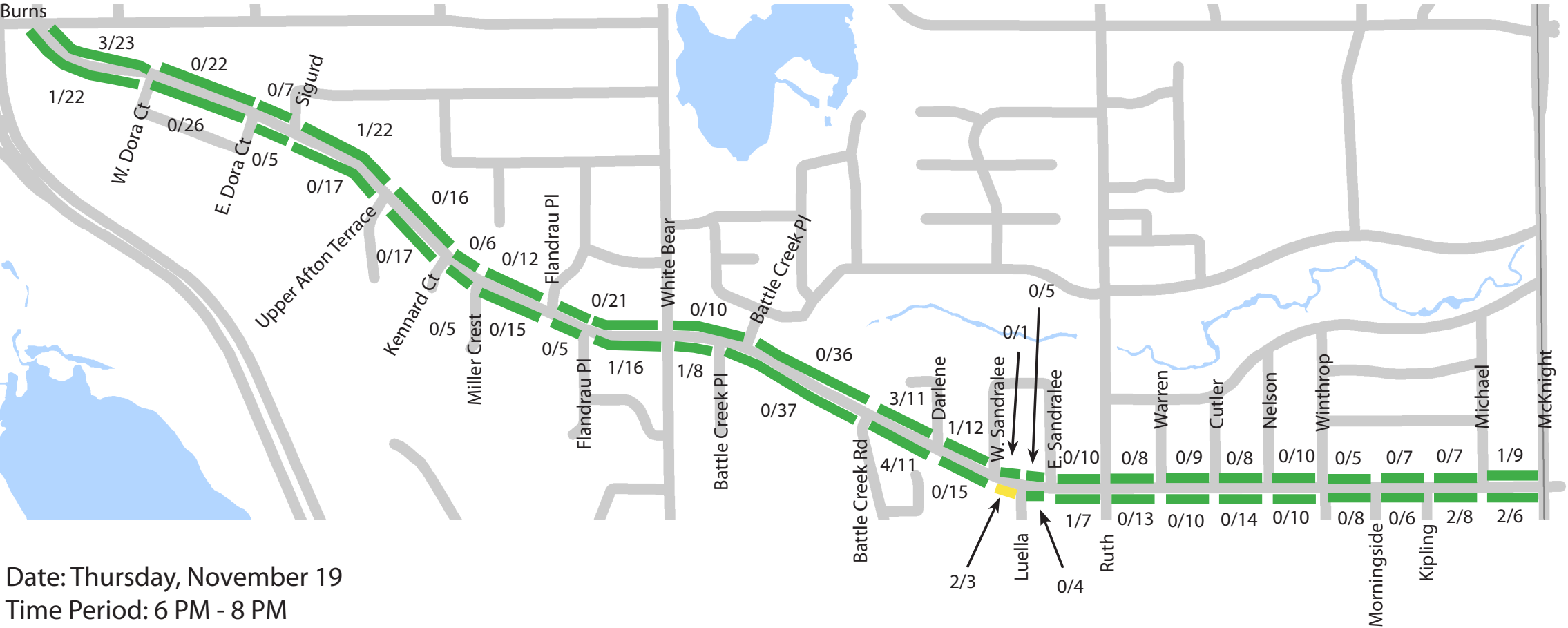
- Observed Parking Utilization
- Signed "No Parking"
  - 0 - 49%
  - 50 - 74%
  - 74 - 100+%

Example: 8/11 =  
Observed Parked Cars /  
Estimated Legal Parking Capacity  
(Observed parking utilization may exceed estimated legal capacity)

Date: Wednesday, November 18  
Time Period: 11 AM - 1 PM



Date: Wednesday, November 18  
Time Period: 6 PM - 8 PM



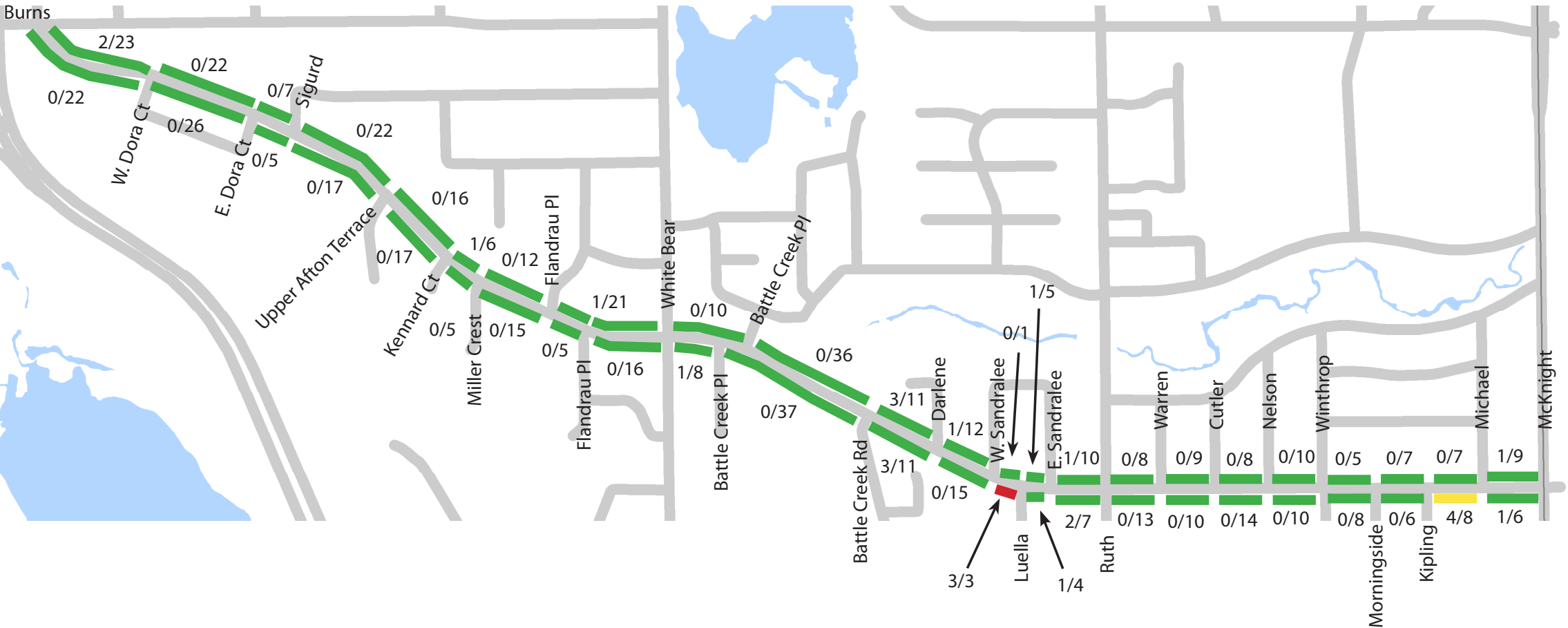
## Upper Afton Rd Parking Counts: Weekday Evening (6 PM - 8 PM)

### Legend

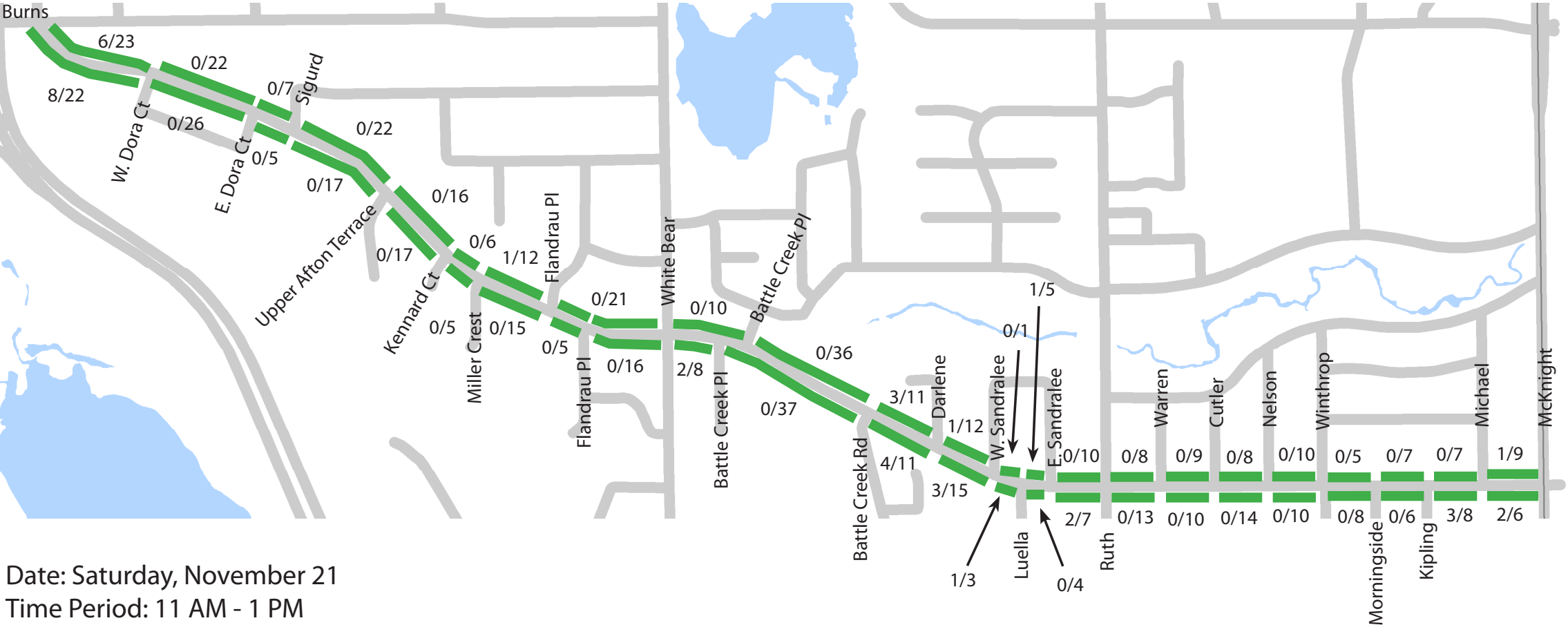
- Observed Parking Utilization
- Signed "No Parking"
  - 0 - 49%
  - 50 - 74%
  - 74 - 100+%

Example: 8/11 =  
Observed Parked Cars /  
Estimated Legal Parking Capacity  
(Observed parking utilization may exceed estimated legal capacity)

Date: Thursday, November 19  
Time Period: 6 PM - 8 PM



Date: Saturday, November 14  
Time Period: 11 AM - 1 PM



## Upper Afton Rd Parking Counts: Saturday Midday (11 AM - 1 PM)

### Legend

Observed Parking Utilization

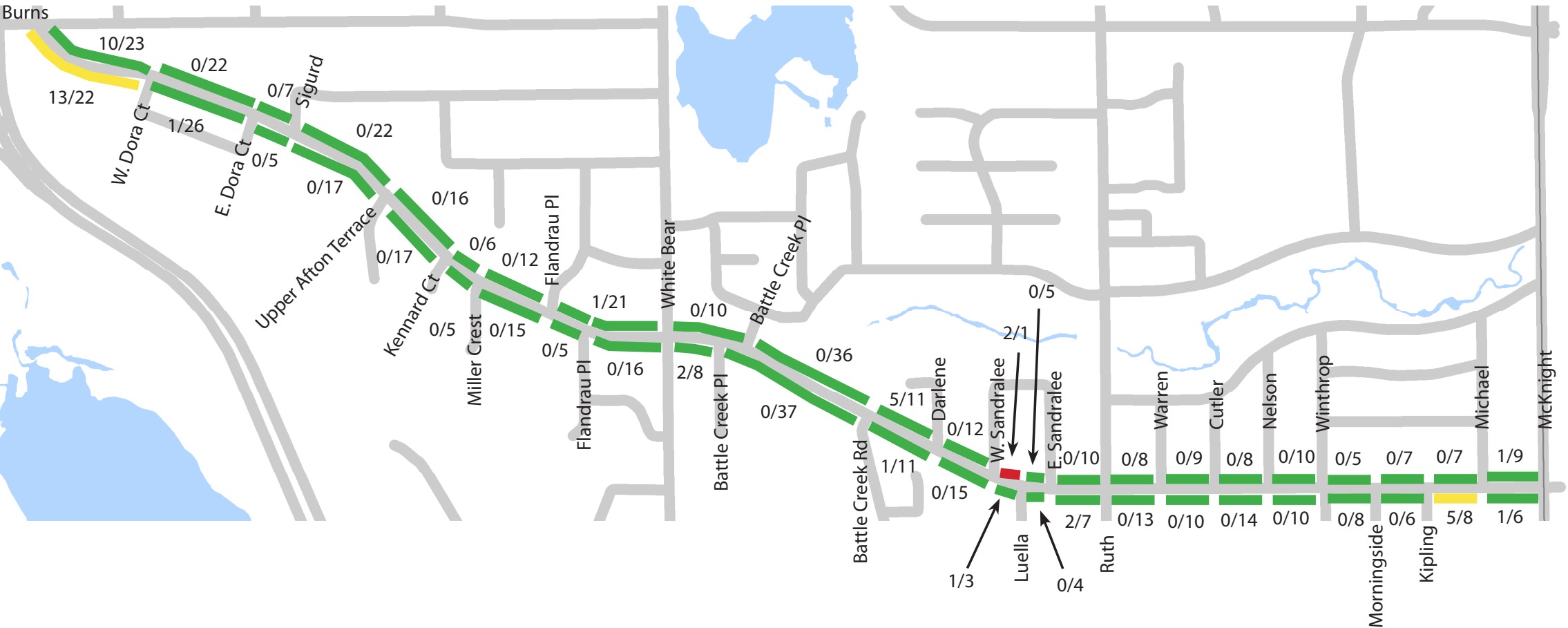
- Signed "No Parking"
- 0 - 49%
- 50 - 74%
- 74 - 100+%

Example: 8/11 =

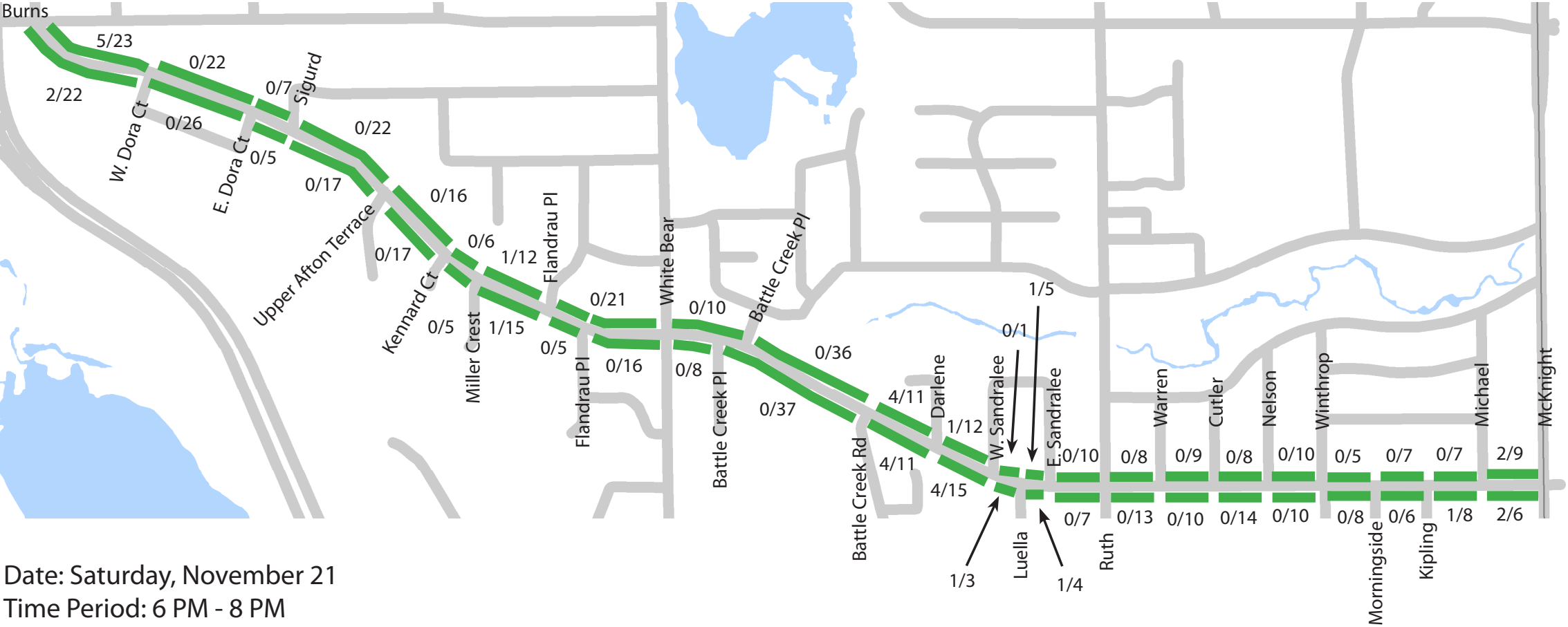
Observed Parked Cars /  
Estimated Legal Parking Capacity

(Observed parking utilization may ex-  
ceed estimated legal capacity)

Date: Saturday, November 21  
Time Period: 11 AM - 1 PM



Date: Saturday, November 14  
Time Period: 6 PM - 8 PM



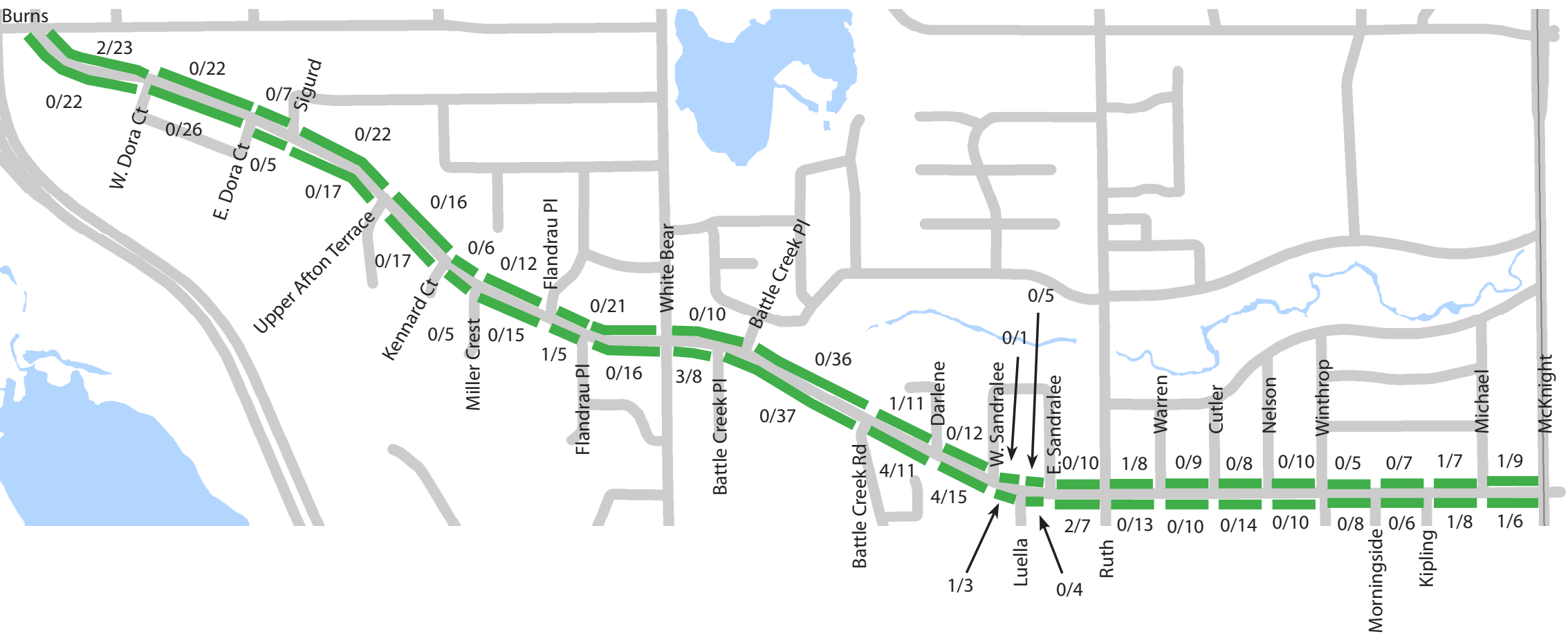
## Upper Afton Rd Parking Counts: Saturday Evening (6 PM - 8 PM)

### Legend

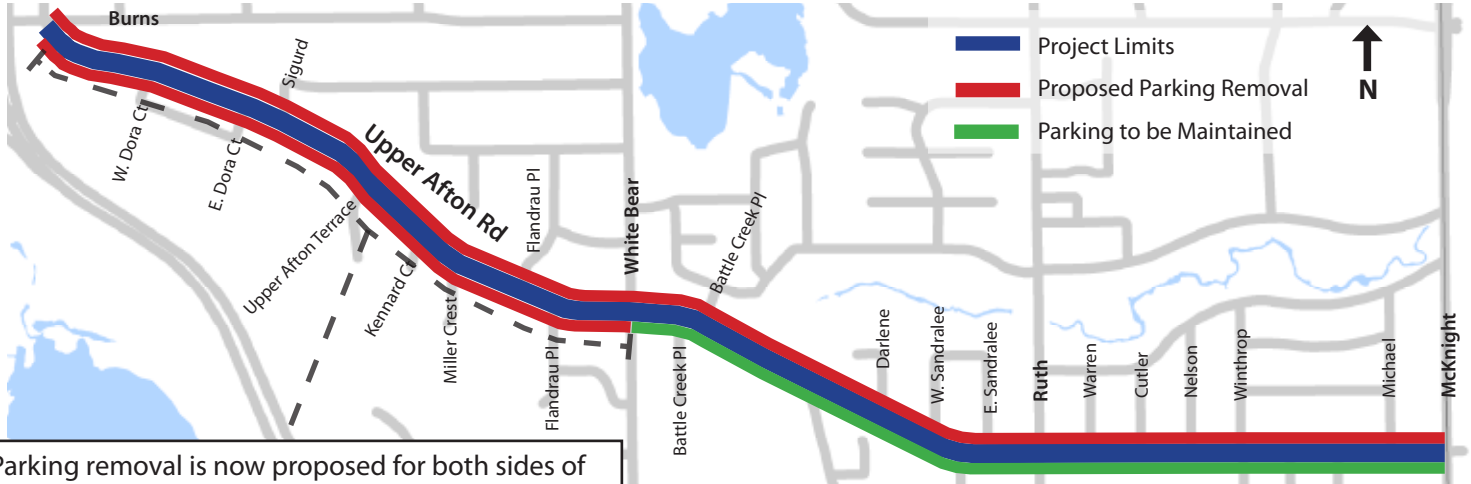
- Observed Parking Utilization
- Signed "No Parking"
  - 0 - 49%
  - 50 - 74%
  - 74 - 100+%

Example: 8/11 =  
Observed Parked Cars /  
Estimated Legal Parking Capacity  
(Observed parking utilization may exceed estimated legal capacity)

Date: Saturday, November 21  
Time Period: 6 PM - 8 PM



# Project Map

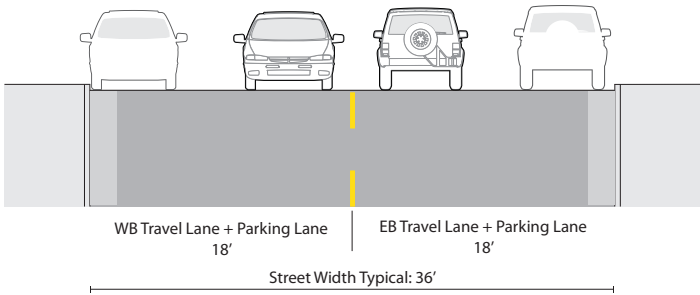


Parking removal is now proposed for both sides of Upper Afton between Burns and White Bear

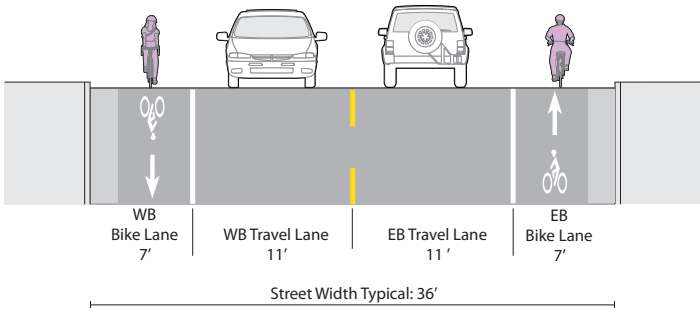
# Upper Afton Bike Lanes

(Burns Ave to White Bear Ave)

Existing:



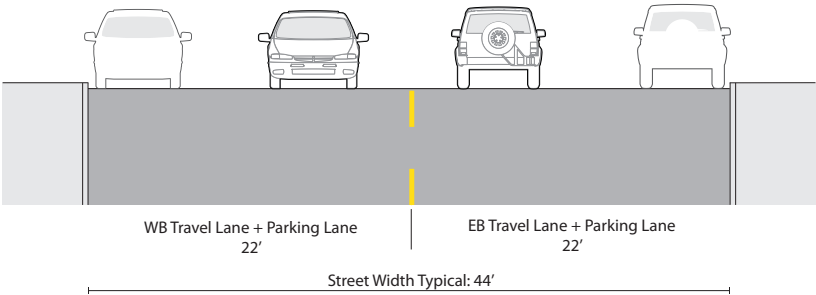
Proposed:



# Upper Afton Bike Lanes

(White Bear Ave to McKnight Rd)

Existing:



Proposed:

