

EDGERTON STREET PROJECT SUMMARY OF ENGINEERING RECOMMENDATIONS

Edgerton Street Bicycle Lanes

Report prepared: 5/9/2016

Open House: 4/21/2016

Public Hearing: 5/18/2016

PROJECT

Implementation of bicycle lanes on Edgerton Street from Maryland Avenue to Wheelock Parkway.

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

PURPOSE

The purpose of this project is to provide an improved north-south bicycle facility on Edgerton Street, improving the bicycling environment as it relates to safety, accessibility, and connectivity.

I. INITIATING ACTION

Ramsey County is planning a mill and overlay of Edgerton Street between Maryland and Larpenteur Avenues 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 lanes on Edgerton Street as a component of the scheduled mill and overlay project.

The Metropolitan Council has identified Edgerton Street as a Tier 1 Regional bicycle Transportation Network Alignment, and the Ramsey County Pedestrian and Bicycle Plan identifies Edgerton Street as a "Planned Major County-wide Corridor" for pedestrian and bicycle travel. The Saint Paul Bicycle Plan recommends "in-street separated lanes" on Edgerton Street within the project limits. Public Works is proposing to implement the recommendations identified in the Bicycle Plan on Edgerton Street from Maryland Avenue to Wheelock Parkway. Bike lanes are already installed on Edgerton between Wheelock Parkway and Larpenteur Avenue, and will be reinstalled following the street resurfacing. These recommendations are also consistent with the recommendations of Met Council Transportation Network Alignment and the Ramsey County Pedestrian and Bicycle Plan.

II. PROPOSED IMPROVEMENTS

Edgerton Street between Maryland Avenue and Wheelock Parkway is classified as an A-Minor Arterial roadway and a County State Aid Highway (CSAH). AADT within the project limits ranges from 4,475 to 6,950 vehicles per day. 85th percentile speeds of 34 MPH northbound, and 35-36 MPH southbound were recorded within the project limits. The posted speed limit is 30 mph. The Saint Paul Bicycle Plan identifies this segment of Edgerton as a component of the planned bicycle network, and identifies "in-street separated lanes" as the recommended facility type.

Edgerton Street - Maryland to Wheelock

Elements proposed for implementation are:

- Restriping the roadway to add 5' (NB) and 6' (SB) bicycle lanes
- Stripe 11' vehicular travel lanes
- Installation of bike lane pavement markings and signage
- Removal of on-street parking on the west side of Edgerton Street between Maryland Avenue and Wheelock Parkway

Edgerton Street - Wheelock to Larpenteur

Elements proposed for implementation are:

- Replace the existing bicycle lanes following the street resurfacing
- Stripe 11' vehicular travel lanes
- Widen the existing (NB) bicycle lane from 4'6" to 5'
- Narrow existing parking lane to 7'

III. ALTERNATIVES

Parking removal is proposed for the west side of Edgerton Street between Maryland Avenue and Wheelock Parkway. Removing parking from the east side of Edgerton instead of the west side was examined, but was ultimately rejected for the following reasons:

- a) Between Maryland and Wheelock, there is more estimated parking capacity on the east side of the street
 - (Estimated Parking Capacity: East: 94 spaces, West: 81 Spaces)
- b) The east side of Edgerton recorded higher parking utilization during the parking surveys
 - (Average Observed Parking Utilization: East: 21 vehicles, West: 14.6 vehicles)
- c) Restricting parking on the west side of Edgerton would match the cross-section of Edgerton north of Wheelock Parkway

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 Edgerton Street while allowing for important connections to existing bicycle facilities on Edgerton north of Wheelock Parkway, and to the Grand Round on Wheelock Parkway. Given the absence of alternative bicycle routes between the Gateway State Trail and Wheelock Parkway, Edgerton Street is a critical north-south connection for non-motorized transportation. Edgerton Street also provides connectivity north of Larpenteur Avenue, increasing its utility as a regional north-south route. 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 Edgerton Street is 30 MPH. Speed studies performed on Edgerton recorded 85th percentile speeds of 34 MPH northbound, and 35-36 MPH southbound 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 4,475 to 6,950 vehicles per day implementing in-street separated lanes to separate bicycle and vehicular traffic will substantially increase the safety of people bicycling on Edgerton Street.

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 west side of Edgerton Street between Maryland Avenue and Wheelock Parkway. North of Wheelock Parkway, parking is already restricted on the west side of Edgerton.

To capture demonstrative parking demand, Public works conducted twelve parking occupancy counts at representative time periods along Edgerton Street (weekday early morning, midday, evening, and Saturday midday and evening). Parking counts of the side streets between Hawthorne and Ivy Avenues were also performed to measure their potential to absorb overflow parking from Edgerton. Parking counts of adjacent side streets were conducted during weekday early morning and evening periods, and during Saturday evening.

Existing legal parking capacity on Edgerton Street between Maryland Avenue and Wheelock Parkway is estimated at 175 spaces, and capacity following the implementation of bicycle lanes

is estimated at 94 spaces. The highest observed parking utilization measured 58-parked vehicles between Maryland and Wheelock (weekday evening, 6 pm - 8 pm), with a mean parking utilization of 35.6 vehicles across the twelve counting periods. Based on the data collected by Public Works, it is anticipated that parking supply following the implementation of bicycle lanes will be sufficient to meet demand. 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 the planned Ramsey County mill and overlay on Edgerton Street, 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
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. Edgerton Street Parking Occupancy Count Results
2. Edgerton Street Project Map
3. Edgerton Street Project Cross-Sections

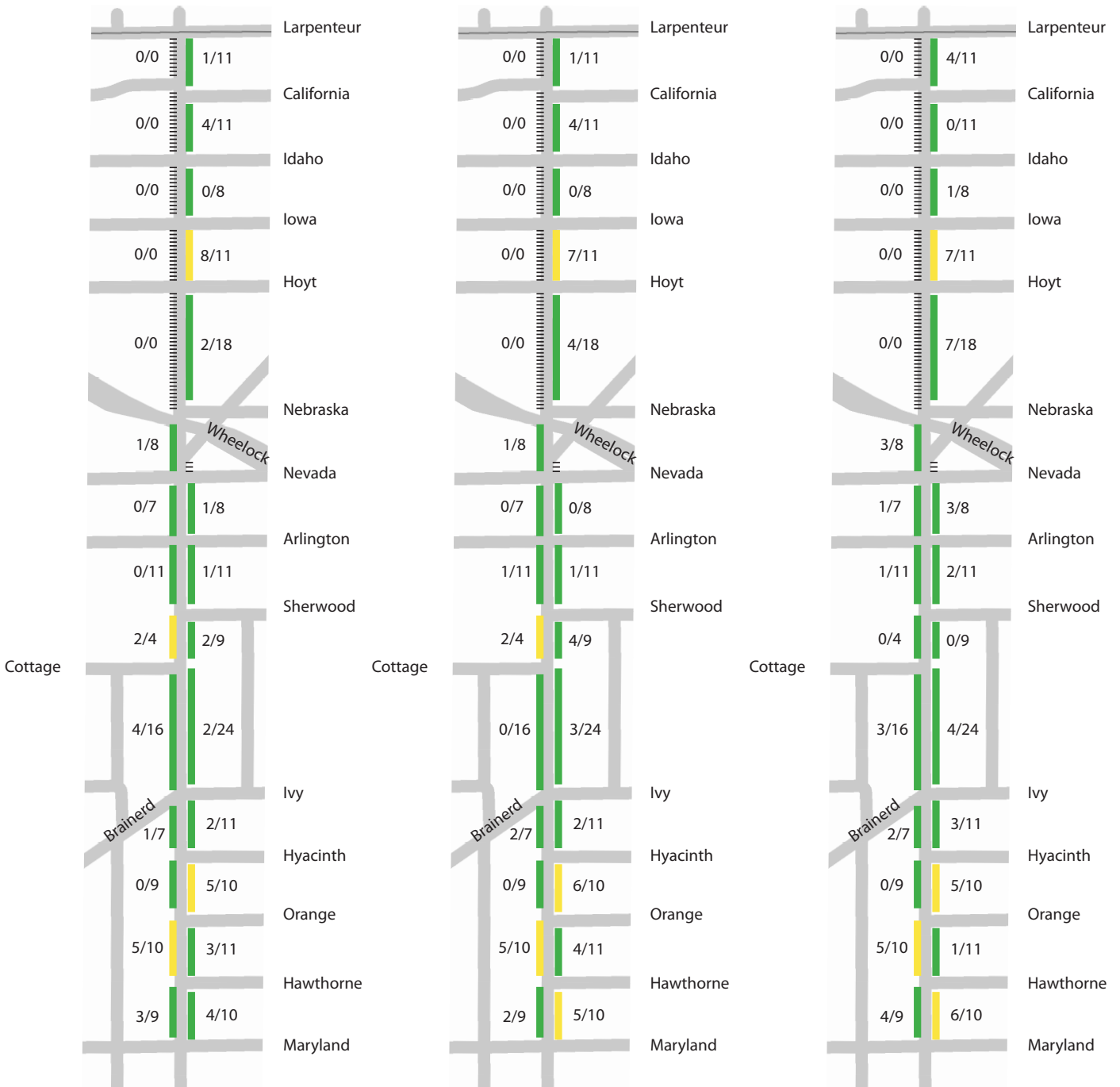
Edgerton St Parking Counts

Weekday Early Morning (4 AM - 6 AM)

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

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

Date: Thursday, April 14
Time Period: 4 AM - 6 AM



Legend

Observed Parking Utilization



Signed "No Parking"

0 - 49%

50 - 74%

75 - 100+%

Example: 8/11 =

Observed Parked Cars /
Estimated Legal Parking Capacity

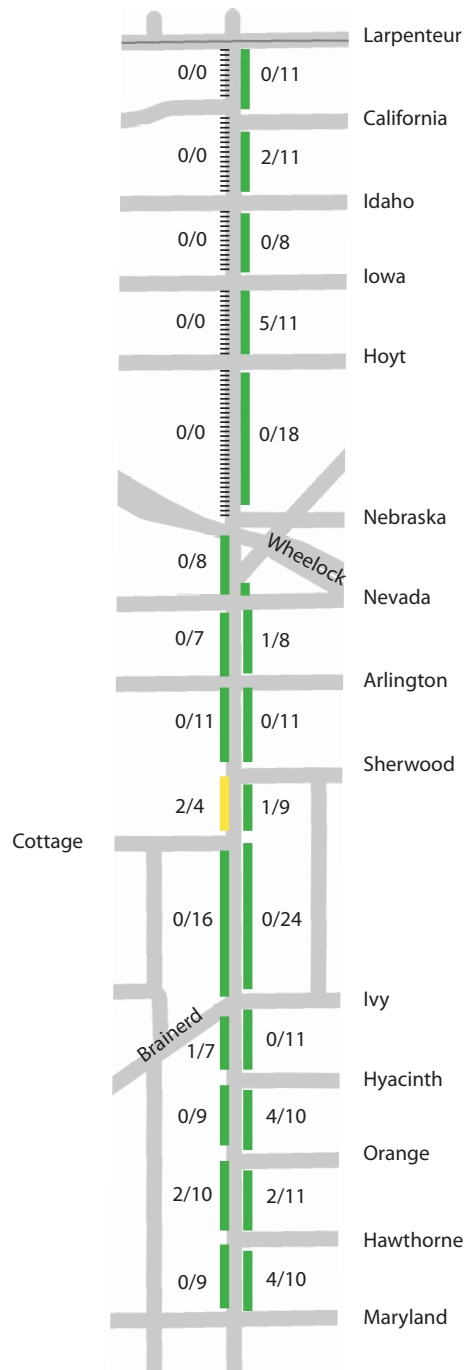
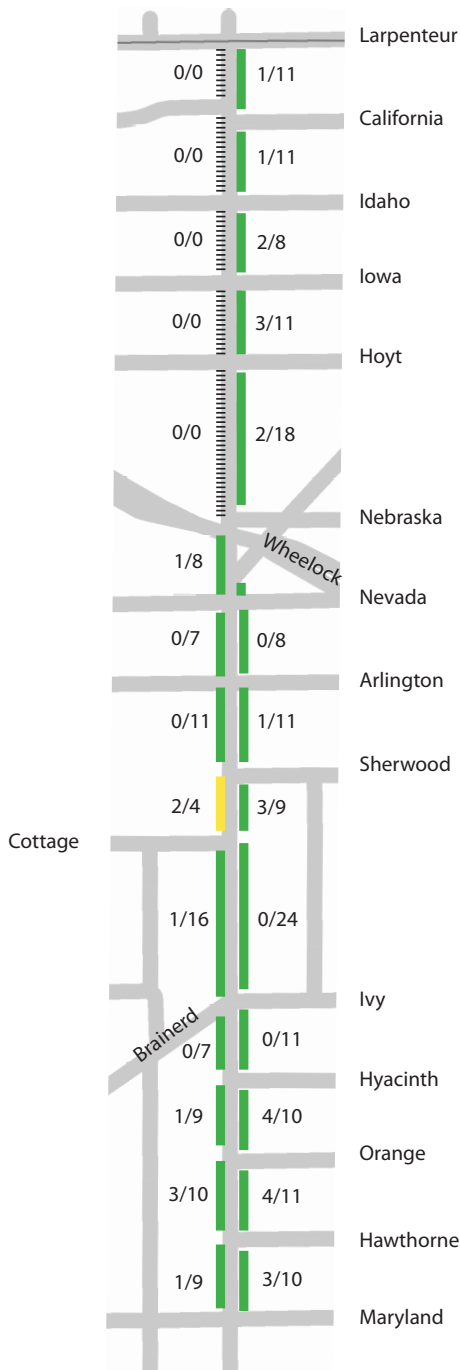
(Observed parking utilization may exceed estimated legal capacity)

Edgerton St Parking Counts

Weekday Midday (11 AM - 1 PM)

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

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



Legend

Observed Parking Utilization

- Signed "No Parking"
- 0 - 49%
- 50 - 74%
- 75 - 100+%

Example: 8/11 =
Observed Parked Cars /
Estimated Legal Parking Capacity

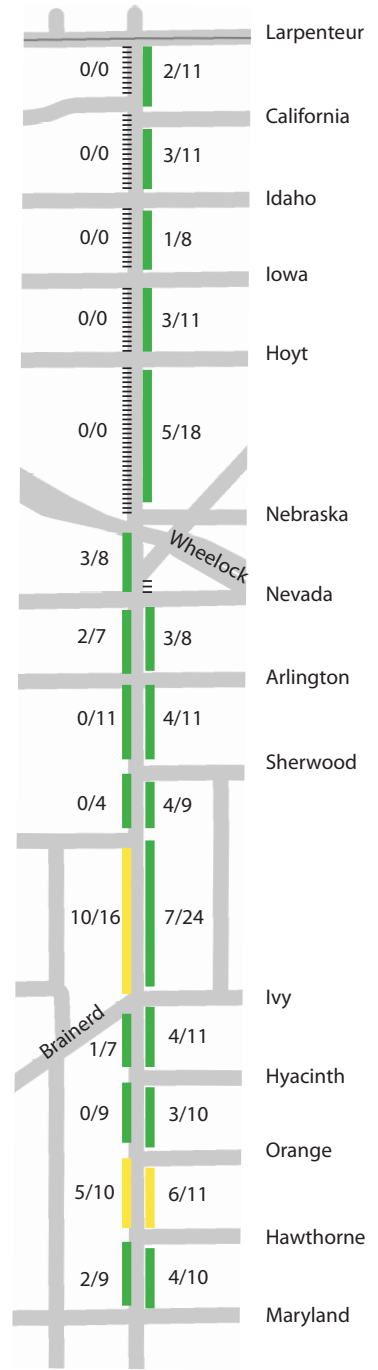
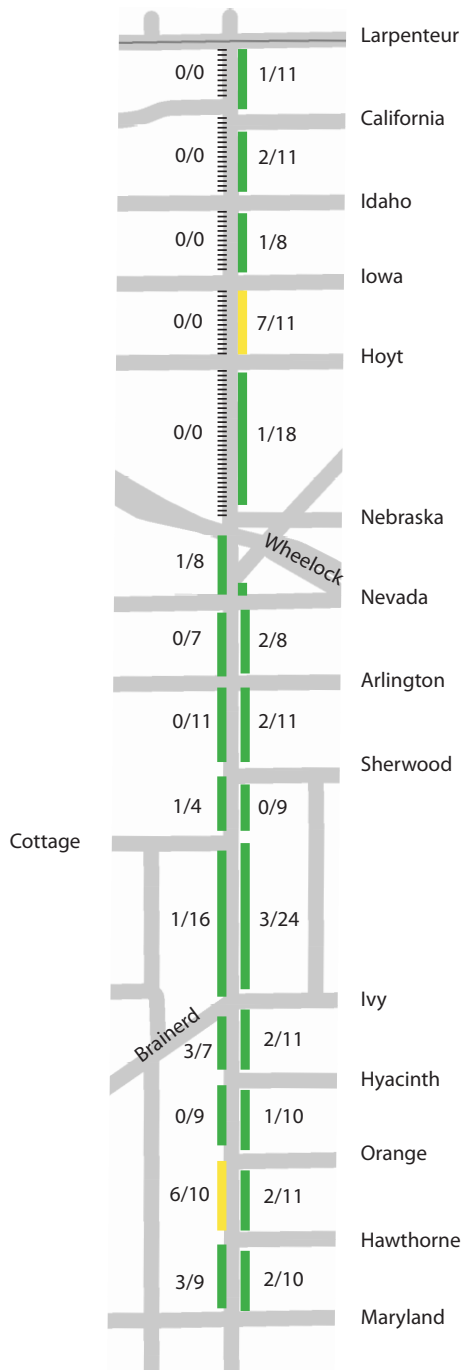
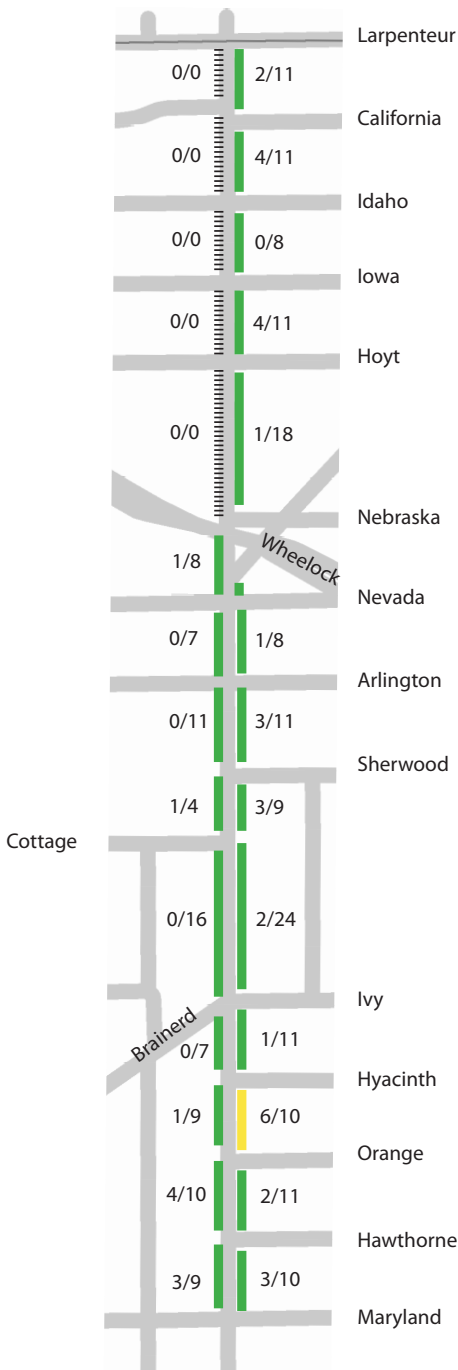
(Observed parking utilization may
exceed estimated legal capacity)

Edgerton St Parking Counts Weekday Evening (6 PM - 8 PM)

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

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

Date: Wednesday, April 13
Time Period: 6 PM - 8 PM



Legend

Observed Parking Utilization

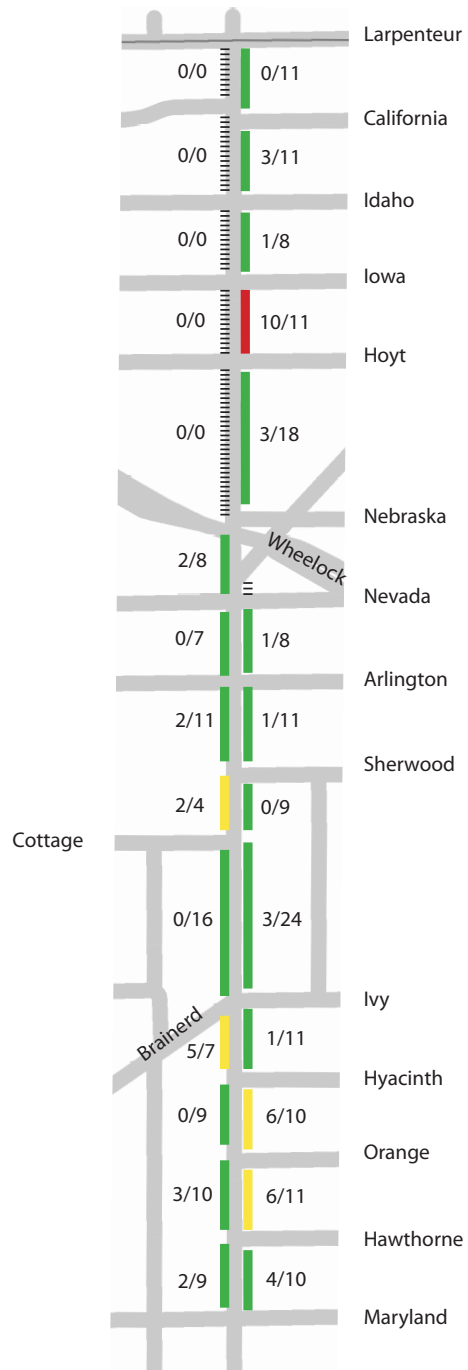
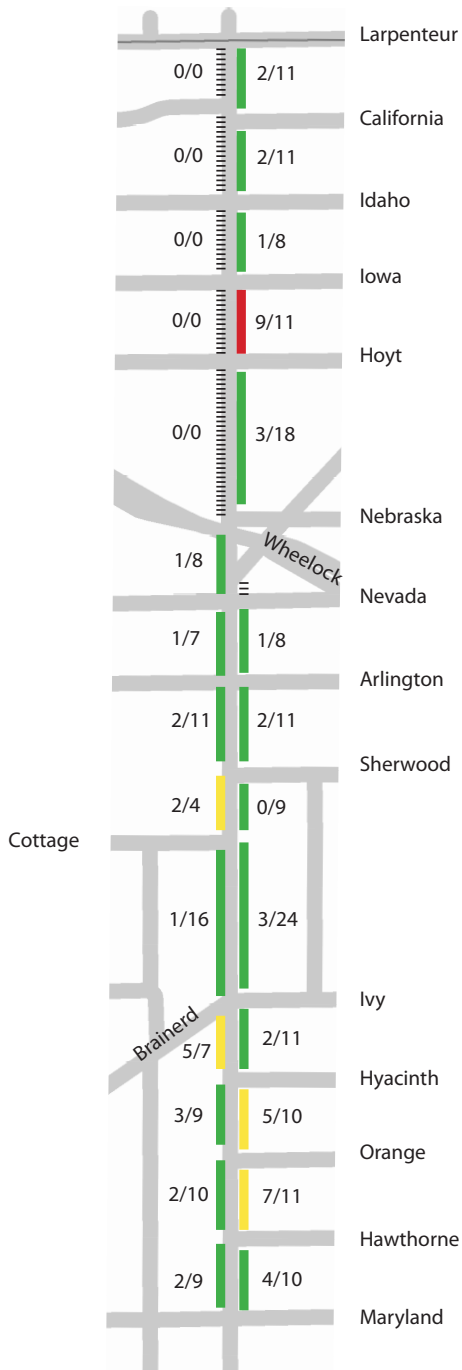
- Signed "No Parking" Example: 8/11 =
 - 0 - 49% Observed Parked Cars / Estimated Legal Parking Capacity
 - 50 - 74%
 - 75 - 100+%
- (Observed parking utilization may exceed estimated legal capacity)

Edgerton St Parking Counts

Saturday Evening (6 PM - 8 PM)

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

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



Legend

Observed Parking Utilization

- ||||| Signed "No Parking"
- █ 0 - 49%
- █ 50 - 74%
- █ 75 - 100+%

Example: 8/11 =
Observed Parked Cars /
Estimated Legal Parking Capacity

(Observed parking utilization may exceed estimated legal capacity)

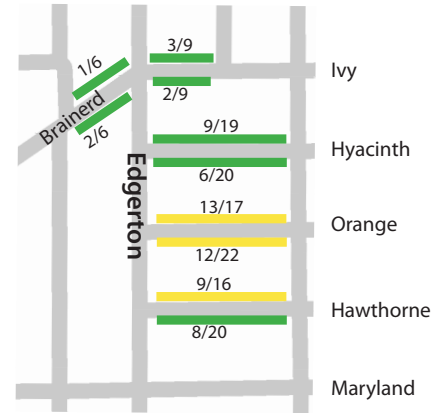
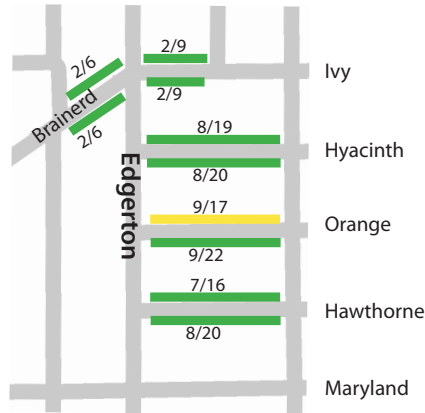
Edgerton St Parking Counts

Side Street Counts

Date: Thursday, April 14
Time Period: 4 AM - 6 AM





Date: Wednesday, April 13
Time Period: 6 PM - 8 PM

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

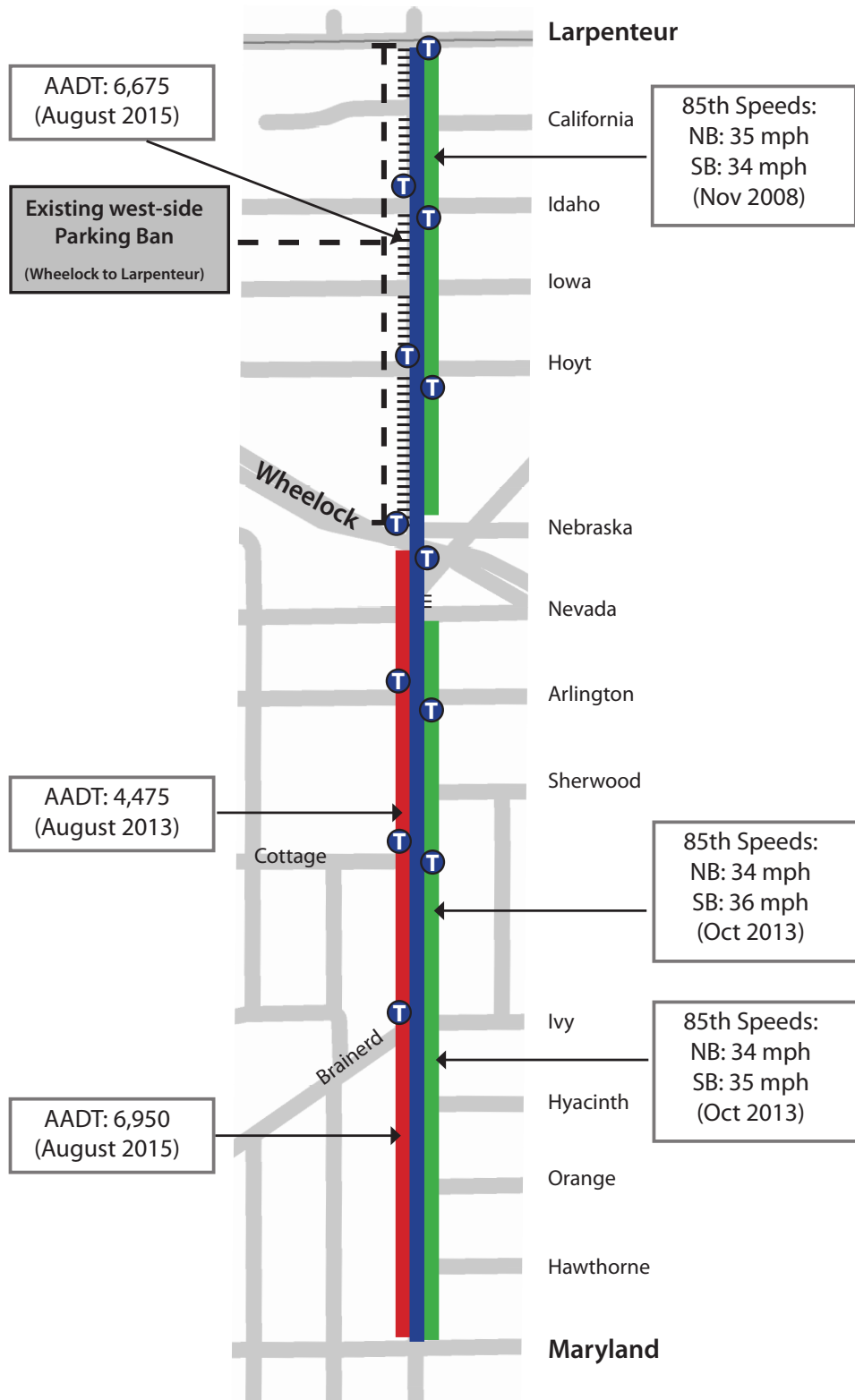


Legend

Observed Parking Utilization

-  Signed "No Parking"
 -  0 - 49%
 -  50 - 74%
 -  75 - 100+%
- Example: 8/11 =
Observed Parked Cars /
Estimated Legal Parking Capacity
- (Observed parking utilization may exceed estimated legal capacity)

Edgerton Project Map

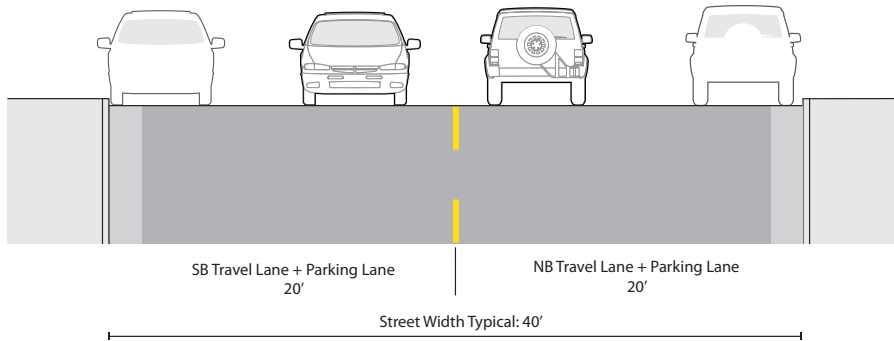


Legend

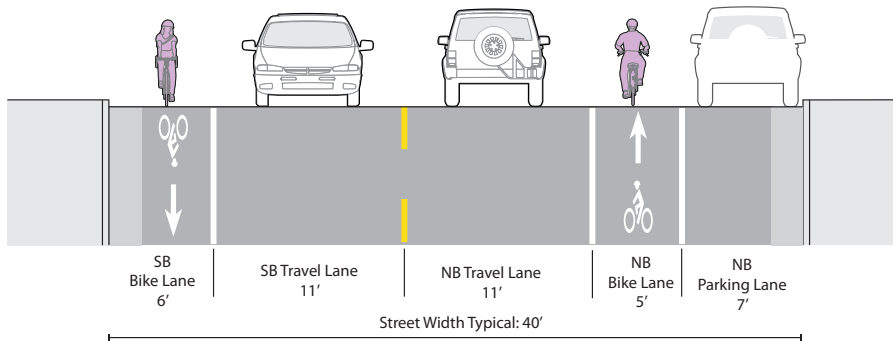
- Parking to be Maintained
- Proposed Parking Removal
- Parking Currently Banned
- T Bus Stop

Edgerton Street Bike Lanes (Maryland Ave to Wheelock Pkwy)

Existing:

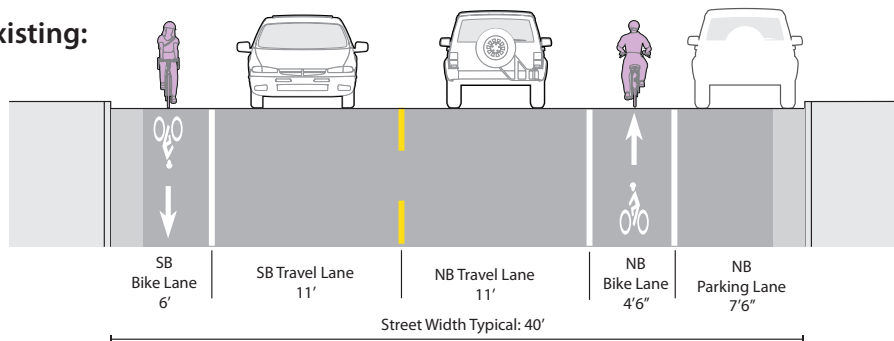


Proposed:



Edgerton Street Bike Lanes (Wheelock Pkwy to Larpenteur Ave)

Existing:



Proposed:

