

BLOOMINGTON TRAFFIC COMMISSION
AGENDA
June 24, 2020
4:30 P.M. – COUNCIL CHAMBERS

This meeting will be conducted electronically. Virtual meetings will be accessible at:

<https://bloomington.zoom.us/j/98831362103>

Dial by your location +1 312 626 6799 US (Chicago); Meeting ID: 988 3136 2103;

Find your local number: <https://bloomington.zoom.us/u/aBva8qmZw>

The meeting will also be streamed live on Facebook at:

<https://www.facebook.com/bloomingtonplanning>

- I. Call to Order
- II. Approval of Minutes – 02.26.2020
- III. Public Comment
- IV. Communications from Commission
 - A. Welcome and introduction of new commission members
- V. Reports from Staff
 - A. Transportation Demand Management Plan: update
- VI. Old Business
- VII. New Business
 - A. TC-20-01: 7-Line Project
 - B. TC-20-02: Fess Avenue
 - C. Request to add a meeting on July 22, 2020
- VIII. Traffic Inquiries
- IX. Requests for future agenda items
- X. Adjournment

Next meeting – July 22, 2020

**Action Requested/Public comment prior to any vote (limited to five minutes per speaker)*

Auxiliary aids for people with disabilities are available upon request with adequate notice. Please call (812) 349-3429 or e-mail human.rights@bloomington.in.gov.

**BLOOMINGTON TRAFFIC COMMISSION
MINUTES
February 26, 2020
4:30 P.M. – COUNCIL CHAMBERS**

- I. **Call to Order:** 4:31 pm; Present: Craig Shonkweiler, Dane Crowder, Chris Etter, Joe VanDeventer, Larry Haywood; Sarah Ryterband (4:34pm)
- II. **Approval of Minutes – 12.18.2019:** Craig Shonkweiler motioned; Dane Crowder seconded; 5-0 (Ryterband was not yet present)
- III. **Public Comment:** None
- IV. **Communications from Commission**

Craig Shonkweiler: mentioned the City tried to place the speed trailer on Grimes, but could not find a location where it actually fit.
Larry Haywood: owns a rental house near Fess; it allows 5 unrelated people but only has one parking space; other comments on rental homes, number of people, and number of cars.
- V. **Reports from Staff**
 - A. **Reminder of Commission Elections**
 - B. **Update: Fess Avenue:** Beth Rosenbarger updated the Traffic Commission about the previous meeting’s Fess Avenue discussion; the update is that it will be updated at the next Commission meeting; staff has done further analysis and might alter the request.
- VI. **Old Business:** None
- VII. **New Business**
 - A. **TC-19-06, Olive Street: one-way request**

Neil Kopper presented for staff; Kopper discussed feeling safe compared with actual safety. Risk and options along streets, trying to manage risk, and where it shifts, etc. Kopper reviewed the volume data, one-way compliance, northbound, bicycle traffic, crash data, etc. Staff’s recommendation is to leave the street two-way and to update a warning sign about the hill and visibility.
Questions to staff: about the right-of-way width; about the possibility of widening; about the location of a curb; about the instances when vehicles meet; about who has the right-of-way
Resident Stuart Yoak presented as the petitioner making the request including images of Olive Street. Mr. Yoak discussed and displayed images of the narrowness of the street; the view from the hill;
Questions: Ms. Ryterband—are there driveways? What would it take for the street to be closed to motor vehicles?

Mr. Kopper: there are challenges to making a dead-end street. Staff did discuss this but did not recommend at this time due to challenges that dead-ends create.

Further discussion about turning traffic from Hillside, widening options; hill warning sign; narrowing intersections;

Motion: To make the block of Olive Street one-way (Dane Crowder); seconded by Larry Haywood. Vote: 2-4; motion failed.

Motion: To accept the recommendation of staff for signage and moving rapidly forward with Greenway standards to install the Neighborhood Greenway and improve visibility (Sarah Ryterband); seconded by Dane Crowder. Vote: 4-2; motion failed.

Staff will circle back next meeting to update on procedures since both motions failed.

VIII. Traffic Inquiries

A. Pete Ellis and Longview request: will be discussed at next meeting.

IX. Requests for future agenda items: None discussed.

X. Adjournment: 5:33pm

Next meeting – March 25, 2020

**Action Requested/Public comment prior to any vote (limited to five minutes per speaker)*

Auxiliary aids for people with disabilities are available upon request with adequate notice. Please call (812) 349-3429 or e-mail human.rights@bloomington.in.gov.

**BLOOMINGTON TRAFFIC COMMISSION
STAFF REPORT
Location: 7th Street**

**CASE #: TC-20-01
DATE: June 24, 2020**

PETITIONER: City of Bloomington

REQUEST: The City is requesting to remove 113 on-street parking meters, one block of neighborhood zone parking, and the east/west stop signs at 5 intersections along 7th Street in order to add improvements. The improvements include a 2-way protected bicycle lane and bus islands, which are consistent with recommendations from the Transportation Plan.

BACKGROUND: 7th Street from the B-Line Trail to Woodlawn Avenue

Transportation Plan: Neighborhood Connector
Bicycle Facility Rec.: Protected Bicycle Lanes
High-Priority Network: Yes
Comprehensive Plan: Downtown; Mixed Urban Residential; Indiana University
Surrounding Streets:

- To the north: 8th Street, one-way eastbound runs from Morton Ave. to Forest Ave. (with two, one-block exceptions: Morton to College is two-way; Woodlawn to Forest is one-way westbound)
- To the south: 6th Street, ends at Indiana Avenue; from Walnut Street west, 6th Street is two-way; from Walnut Street to its terminus at Indiana Avenue, 6th is one-way eastbound.
- Cross Streets: Morton Avenue (two-way, two-lane); College Avenue (one-way, three-lane southbound); Walnut Street (one-way, three-lane northbound); Washington Street (one-way, one-lane southbound); Lincoln Street (one-way, one-lane northbound); Grant Street (two-way, two-lane); Dunn Street (one-way, two-lane southbound); Indiana Avenue (one-way, two-lane northbound); Fess Avenue and Park Avenue connect with 7th Street but do not have 4-way intersections;

Summary of the project:

The City is proposing to add multimodal improvements on 7th Street from the B-Line Trail to Woodlawn Avenue, which is approximately 0.72 miles long. The improvements include the following: a two-way protected bicycle lane on the south side of the street; three bus stop islands on the south side of the street; four raised pedestrian crossings; two raised bicycle lane crossings; seven protected intersections; two intersections with bicycle signals; and updated pedestrian curb ramps where needed along the corridor. The plan images attached show the proposed changes along each block of the corridor.

Implications for Changes to Title 15:

Title 15 of Bloomington’s Municipal Code, “Vehicles and Traffic,” includes regulations for intersections, parking controls, and bicycle facilities. The City requests to update Title 15 to

reflect the proposed improvements along the 7th Street corridor from the B-Line Trail to Woodlawn Avenue. The changes to Title 15 would include the following: removing the following from the list of parking metered blocks (100 W 7th, 100 E 7th, 200 E 7th, 300 E 7th, and 400 E 7th); modifying stop control at several intersections; adding the relevant blocks to the “No parking” schedules. Other changes may be necessary to update the code.

Adopted Plans:

The Transportation Chapter of the Comprehensive Plan includes 7 goals.

- Goal 6.1 Increase Sustainability: Improve the sustainability of the transportation system.
- Goal 6.2 Improve Public Transit: Maintain, improve, and expand an accessible, safe, and efficient public transportation system.
- Goal 6.3 Improve the Bicycle and Pedestrian Network: Maintain, improve, and expand an accessible, safe, and efficient network for pedestrians, and attain platinum status as a Bicycle Friendly Community, as rated by the League of American Bicyclists.
- Goal 6.4 Prioritize Non-Automotive Modes: Continue to integrate all modes into the transportation network and to prioritize bicycle, pedestrian, public transit, and other non-automotive modes to make our network equally accessible, safe, and efficient for all users.
- Goal 6.5 Protect Neighborhood Streets: Protect neighborhood streets that support residential character and provide a range of local transportation options.
- Goal 6.6 Optimize Public Space for Parking: Plan and develop parking for cars and bicycles with a focus on efficiency and equity.
- Goal 6.7 Educate the Public: Increase residents’ safe use of transportation options that minimize negative environmental and infrastructure impacts.

The proposed improvements for 7th Street directly support Goal 6.1, Goal 6.2, Goal 6.3, and Goal 6.4 of the Comprehensive Plan. The project supports those goals because it directly improves transit, pedestrian infrastructure, and the bicycle network. Research has shown that high-comfort facilities, such as a two-way protected bike lane, can increase mode share for bicycling. Locally, this has been demonstrated with the B-Line Trail. This project can serve to reduce single-occupancy vehicle use, which supports Goal 3.7: Reduce greenhouse gas emissions, in addition to supporting Transportation Goals 6.1 and 6.4.

While the project proposes removing on-street parking, it relates to Goal 6.6 because, based on the collected on-street parking revenues, the on-street metered parking on the corridor is underutilized.

The Transportation Plan recommends adding a protected bicycle lane on 7th Street, shown in Figure 20 of the plan. The Transportation Plan also recommends a Priority Bicycle Facilities Network, Figure 21, and this street is a part of the priority network. The focus of the priority network is to create a high-comfort and safe network in order to increasing bicycling as transportation in the community. Finally, in Appendix E, each element of the streetscape is given a priority level in order to compare between different elements, “when faced with budgetary constraints, limited right-of-way, and operational challenges,” (Appendices, pg. 57). In this project, both the budget and the right-of-way are limited. Working within the existing curbs on

the street requires making tradeoffs. In Appendix E, Figure 17: Typology Prioritization Matrix prioritizes On-Street Bikeways as a “Higher Priority,” and on-street parking as a “Medium Priority.” The plan notes that, “medium or lower priorities should not be dismissed from inclusion unless constraints make it infeasible to include all of the default elements for the typology.” In this case, the constraints make it infeasible to include a protected bicycle lane and on-street parking. This project is consistent with the recommendation from the Transportation Plan.

Impacts:

In order to work within the existing curbs, maintain the existing street trees, and minimize costs, most of the on-street motor vehicle parking will need to be removed. Several on-street parking spaces will remain on the north side of the street from the B-Line Trail to College Avenue, and the other existing 113 on-street metered parking spaces would be removed. The parking meters along this corridor generated \$160,000 in revenue in 2019 (throughout that year the 4th Street Garage was closed). While the revenue generated is not insignificant, it represents only 35% of the available meter hours. In parking best practices, the goal is for parking to be 85% occupied at any given time. Based on the best practice, the on-street parking along 7th Street was underutilized in 2019.

For residents and visitors looking to park, parking in the Walnut Street garage is available, and two parking garages are currently under construction—a new parking garage in the Trades District and an expanded 4th Street Parking garage. Additional parking on Dunn Street will be added with 11 new metered parking spaces and 33 neighborhood zone spaces. The parking demand represented by the meters generating revenue for 35% of available hours, translates to 42 parking spaces. Finally, some residents may be willing to try a different mode such as walking, bicycling, or using transit, or alternatively access parking nearby.

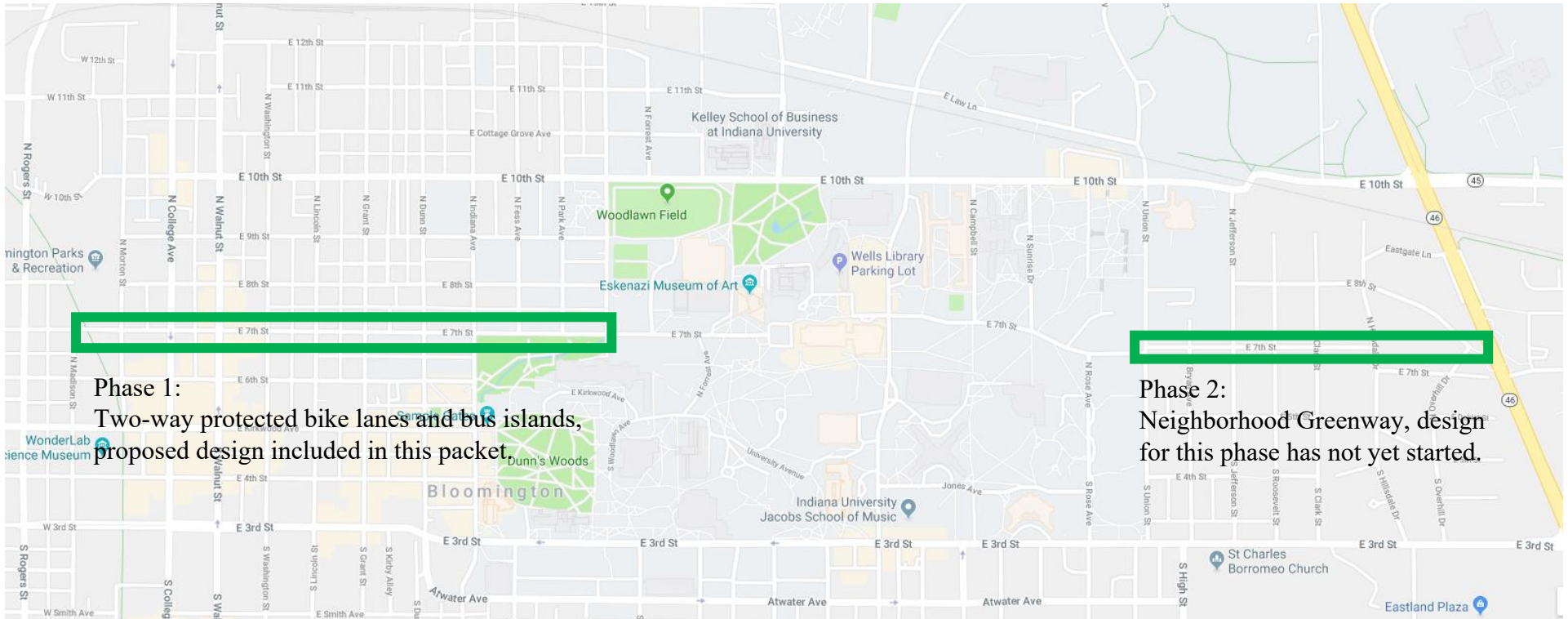
This project’s primary impact will be to improve safety along the corridor, as bicycle facilities have been shown to improve safety for all street users. These safety improvements will include transit, which experiences 5 or more minor crashes each year along the street due to the narrowness of the lanes adjacent to on-street parking. Finally, removing the all-way stop sign controls along many of the intersections will improve east/west connectivity and efficiency for bicyclists and transit users.

Next steps: The 7th Street project is being reviewed by the Bicycle and Pedestrian Safety Commission, the Traffic Commission, and the Parking Commission. A positive recommendation is requested from each Commission, and the project will be forwarded to the Common Council for consideration due to the needed changes to Title 15.

RECOMMENDATION: The Planning and Transportation Department finds that the 7th Street project supports multiple Comprehensive Plan Goals and is consistent with the recommendations of the Transportation Plan; and therefore recommends that the Traffic Commission forward this project and the needed Title 15 amendments with a positive recommendation to the Common Council.

7th Street Improvements

- 1st Section: 7th Street, B-Line to Woodlawn Avenue
 - Design: 2-way Protected Bicycle Lane designed to increase safety and comfort for all roadway users
 - 0.7 miles
 - Design will include separation for bus stops and street design improvements for bus traffic.
- 2nd Section: 7th Street from Union Avenue to the Bypass
 - Design: Neighborhood Greenway designed to calm traffic and prioritize walking and bicycling
 - 0.6 miles





**2-way Protected
Bicycle Lane
example from West
Lafayette, Indiana**



2-way Protected Bicycle
Lane example from
Austin, Texas

MEMORANDUM

April 26, 2019

To: Neil Kopper (City of Bloomington, Planning & Transportation)
From: Sagar Onta PE, PTOE and Mariel Colman, AICP, EI (Toole Design)
Cc: Nicholas Murphy, PE and Hardik Shah, PE (American Structurepoint)
Project: 7th Street Protected Bike Lane
Re: **Preliminary Design Concept**

The Bloomington Transportation Master Plan identified 7th Street from the B-Line Trail to Woodlawn Avenue as the location for a potential signature bikeway project for the City. This would provide a key multimodal connection from the B-Line and Indiana University. The vision for the 7th Street multimodal design, or 7-Line, is for it to mirror the low-stress facility that the B-Line provides by using separated design elements that focus on a comfortable and enjoyable experience for users of all ages and abilities. The preliminary concept drawings submitted with this memorandum were developed with this vision in mind. The following memorandum documents the design decisions and recommendations for the continued development of the engineering design of this project.

Design Elements

The following sections summarize the major elements of design considered for the project limits. Each section discusses the preferred design standards and related guidance.

Protected Bike Facility

For 7th Street, a bike lane of 11 ft is preferred for the length of the project due to relatively high anticipated bicycle volumes; this facility will provide safer bicycle connection between the highly used B-Line and the IU campus. Where additional space was available within the existing curb-to-curb width, the design uses it for either the bike lane or the buffer space. The proposed design maintains the current curb configuration (without gutter), which allows additional space to be allocated to the bicycle facility.

Vertical curb in a bicycle facility can present a crash risk because a bicyclist's wheel or pedal can strike the curb, and it should be avoided when possible. Where new curb is installed adjacent to the proposed bicycle facility, sloping curb should be provided (Concrete Curb Type B, INDOT). During future reconstruction projects, any remaining vertical curb adjacent to the proposed facility should be replaced with a sloping curb.

The preferred buffer width for the project area is 6 ft. The bicycle buffer widths that result in a turning offset between 6 ft and 16.5 ft from the outer motor travel lane have been shown to significantly reduce crashes at separated bike lanes^{1,2}. The added safety is due to the improved visibility between bicyclists and motorists who

¹ Schepers, J.P., P. A. Kroeze, W. Sweers, and J.C. Wust. Road Factors and Bicycle-Motor Vehicle Crashes at Unsignalized Priority Intersections. Accident Analysis and Prevention, Vol. 43, 2011, pp. 853-861

² Madsen, T., and H. Lahrmann. Comparison of Five Bicycle Facility Designs in Signalized Intersections Using Traffic Conflict Studies. Transport Research Part F, Vol. 46, 2017, pp. 438-450.

are turning across their path and the additional space for motorists to yield in. In addition, a 6-ft island is the minimum width needed to provide a pedestrian crossing island at the intersection. For the majority of the project area, a 6-ft buffer can be accommodated within the existing roadway with intersection adjustments.

Motor Vehicle Lanes

In urban areas, vehicular lanes in excess of 10 ft increase speed rather than capacity^{3,4}. NACTO's urban Street Design Guide states 10-ft lanes should be the standard in urban contexts, saying, "lane widths of 10 feet are appropriate in urban areas and have a positive impact on a street's safety without impacting traffic operations."⁵ In the preliminary design concept, 10 ft is the preferred lane width for all through lanes for the length of the project area. Lane width is measured from curb face to curb face or pavement lane marking. Any additional space added will increase the effective lane width and allow for higher speeds than the existing condition. The extra 4 ft of space gained by not incorporating the standard 2-ft gutter in the design concept allows the bicycle buffer width to be increased to 6 ft, which will provide added safety benefit for bicyclists.

Corner Radius

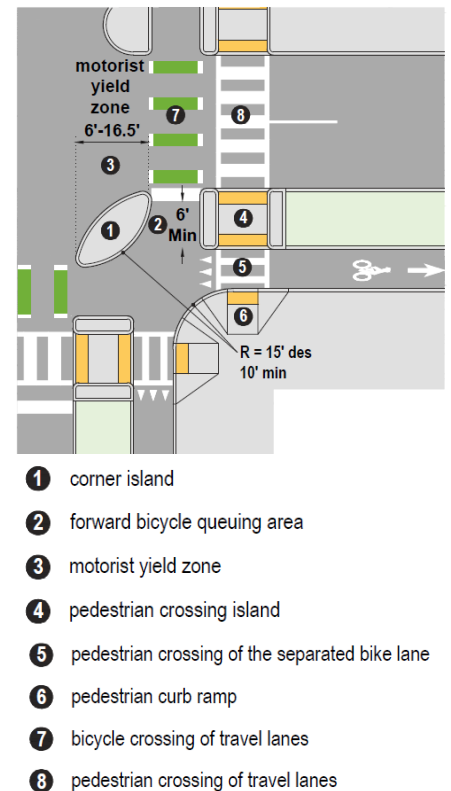
A corner radius of 10-20 ft should be considered at all intersections. Corner radii directly impact vehicle turning speeds, and minimizing it forces safer turning speeds where motorists interact with cyclists and pedestrians.

Protected Intersections

Where possible, the preliminary design concept incorporates protected intersection principles. Elements of a protected intersection include corner islands, forward bicycle queuing areas, yield zones for turning motor vehicles, pedestrian crossing islands, pedestrian crossings of a protected bikeway, pedestrian curb ramps, signal phasing (i.e., leading pedestrian/bicycle intervals), and protected phasing. They may also include a mountable apron as part of the corner island for turning trucks. These features are designed to improve the safety of bicyclists and motorists by improving visibility and separating the two modes in time and space.

Advance Stop Bar

An advance stop bar or forward bicycle queue area is preferred at controlled locations, where feasible. The Manual on Uniform traffic Control Devices (MUTCD) allows longitudinally staggering stop lines on a lane-by-lane basis, as shown in Drawing D of Figure 3b-13 in Section 3B.16.⁶ The stop bar for bicycle traffic is typically 6-15 ft ahead of the motor vehicle stop bar and at least 6 ft ahead of a pedestrian crossing. An advance stop bar can improve drivers' view of cyclists at intersections. It also decreases the crossing distance for cyclists and gives them a head start to cross the intersection.



³ Project 3-72, Relationship of Lane Width to Safety for Urban and Suburban Arterials, NCHRP 330, Effective utilization of Street Width on urban Arterials

⁴ Florida Department of Transportation. "Conserve by Bicycle Program Study." FDOT, June 2007, fdotwww.blob.core.windows.net/sitefinity/docs/default-source/safety/safety/4-reports/bike-ped/cbbphase1-execsummary062907r.pdf?sfvrsn=967478d3_0.

⁵ National Association of City Transportation Officials. "Lane Width." National Association of City Transportation Officials, 24 July 2015, nacto.org/publication/urban-street-design-guide/street-design-elements/lane-width/#footnotes.

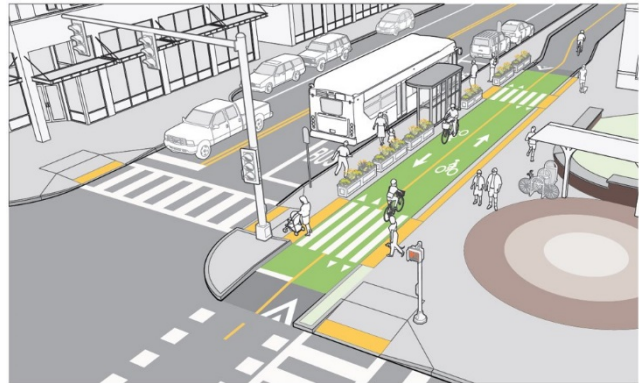
⁶ Federal Highway Administration. "Manual on Uniform Traffic Control Devices." 2009.

Splitter Island

Splitter islands should be installed on two-way bicycle facilities where there is a concern that motor vehicles may turn into the facility. The splitter island should be placed approximately 30 ft from the intersection to prevent turning bicyclists from striking the island. At minimum, an island should be 2 ft by 6 ft. Vertical flex posts may be installed on the island to improve its visibility, especially during inclement weather.

Floating Bus Stop

Floating bus stops are recommended at all the bus stop locations on the southside of 7th Street in the project area. The stops must be designed with accessible boarding accommodations. Boarding areas should be 8 ft wide and at least 5 ft long to permit boarding maneuvers by a person using a wheelchair (ADA St. 810.2.2)⁷. Based on both the vehicles used and state guidance, it is recommended that a boarding platform with a length of 50 ft be provided at each stop. As the floating bus stops will be located next to the proposed two-way bicycle facility, crosswalks will be provided as well as the MUTCD R9-6 sign “BIKES YIELD TO PEDESTRIANS.” Pedestrian crossings with detectable warnings on both sides should also be provided at each stop. The bike lanes will need to shift to accommodate the boarding platform. In some instances, the width may also be reduced to be as narrow as 8 ft to accommodate an accessible platform. The bike lane will be raised to an intermediate level and marked with green paint to clearly identify it as a cycling facility to passing pedestrians and transit users.



Bicycle Signal

A bicycle signal is recommended for signalized intersections within the project area to allow bicyclists to safely cross the intersections, especially those riding in the counter-flow direction to the adjacent motor vehicles. A separate bicycle signal with a leading bicycle interval will give priority to bicycle movement and allow bicyclists to safely establish themselves in the intersection.⁸

Access Management

When possible, driveways should be consolidated or relocated to side streets. On driveways and alleyways remaining open, conflict markings should be used to signify the two-way bicycle traffic crossing the area.^{Error! Bookmark not defined.} NACTO recommends that these access points be constrained or channelized to make turns at sharp angles thereby reducing travel speed prior to the crossing point.⁸

Recommended Design Summary

7th Street from the B-Line to Dunn Street

Where feasible, the proposed design abides by the design element parameters discussed in the Design Elements section of this memorandum. The preliminary design will provide a significantly safer bicycle facility than the

⁷ Department of Justice. “2010 ADA Standards for Accessible Design.” Americans with Disabilities Act, 15 Sept. 2010, www.ada.gov/regs2010/2010ADAStandards/2010ADAStandards.pdf.

⁸ National Association of City Transportation Officials. Urban bikeway design guide. Island Press, 2014.

current condition. However, the design is anticipated to result in elimination of approximately 118 parking spaces along the corridor as well as driveway closures.

Several parking spaces will need to be removed to safely align the eastbound and westbound through lanes and provide space for special uses (loading zone, bus stops). The design also reduces utility impacts and the loss of mature trees in the area, to the extent possible. Three parking spaces will be eliminated from B-Line to Morton Street to provide adequate taper lengths and better align the approaches. From Morton Street to College Street, angled parking on the north side will be replaced with four parallel parking spaces. This will allow the electrical transformer on the south side to remain. On-street parking on several other blocks will need to be removed to accommodate the proposed bicycle facility.

To reduce conflict points and improve safety, several driveway closures are recommended as a part of the project. A total of five driveways are recommended to be closed. They are:

- The unused driveway to the parking garage located between Morton Street and College Street.
- The driveway to the property located on the SE corner of the 7th Street and Washington Street intersection to accommodate a standard floating bus stop at the location. The property has an alternate driveway on Washington Street.
- Three driveways between Washington Street and Lincoln Street. The preliminary design shows alternate parking circulation for the impacted properties. A total of six off-street parking spaces are anticipated to be lost due to the new circulation.

7th Street from Dunn Street to Woodlawn Avenue

Between Dunn Street and Woodlawn Avenue, the existing curb-to-curb width is too narrow to provide the proposed facility type's preferred widths. In addition, the landscaping/furnishing zone is narrow due to many mature trees. As such, the conceptual design shows an 8-ft-wide bike facility with a 2-ft buffer, both the minimum widths for the facility. In addition, from Dunn Street to Indiana Avenue, the motor vehicle lanes will need to be reduced to 9.5 ft wide to be accommodated within the existing curb-to-curb width. A 9-ft bike lane with a 2-ft buffer and 10-ft motor vehicle travel lanes are feasible from Indiana Avenue to the project terminus.

Alternatively, the north side curb may be moved to accommodate 10-ft travel lanes in each direction, a 2-ft buffer, and 10-ft, two-way protected bicycle facility. This alternative will require reducing or eliminating the landscape buffer, which will impact existing mature trees along these two blocks. Other alternative designs may be feasible, each with varying degrees of impact to the existing trees and adjoining properties.

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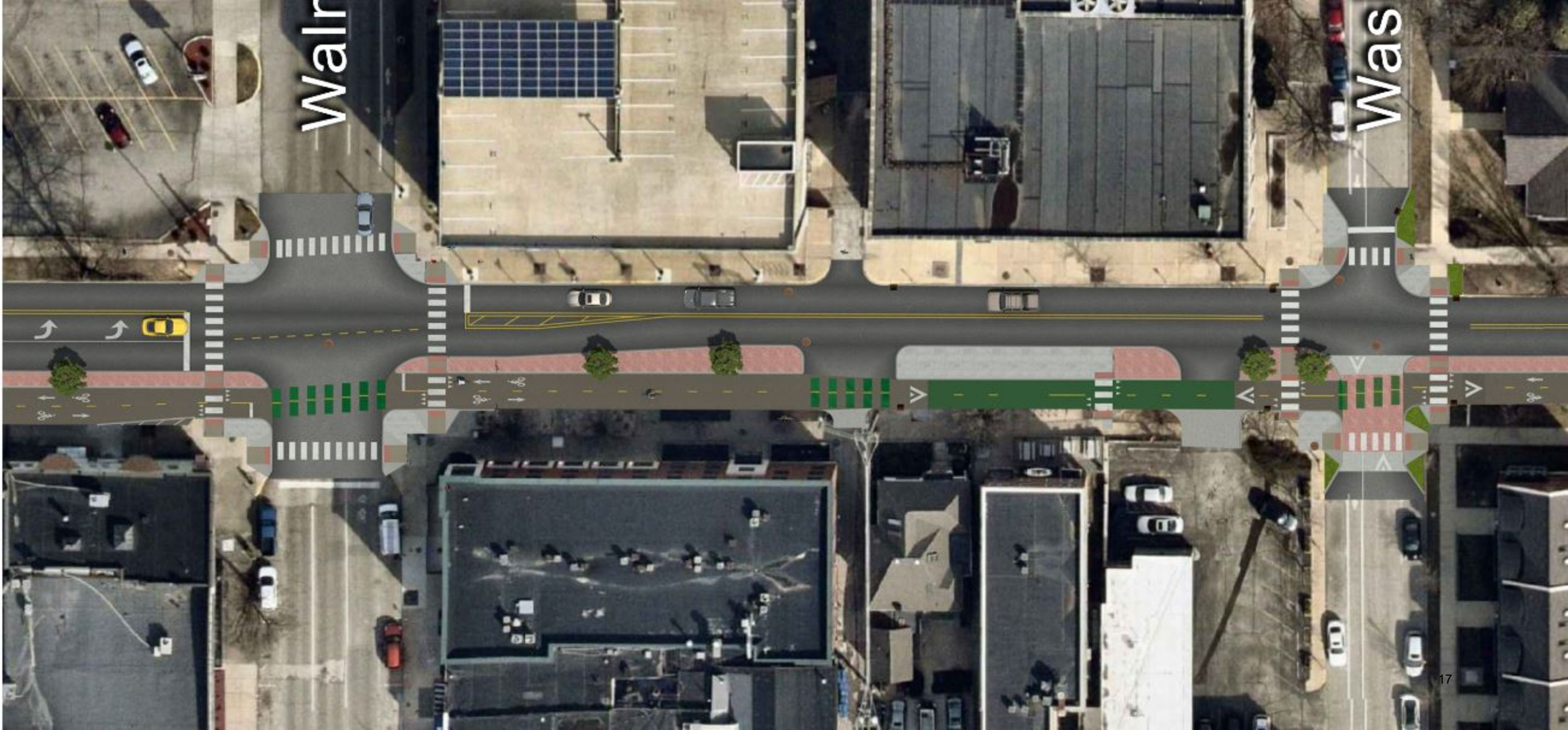
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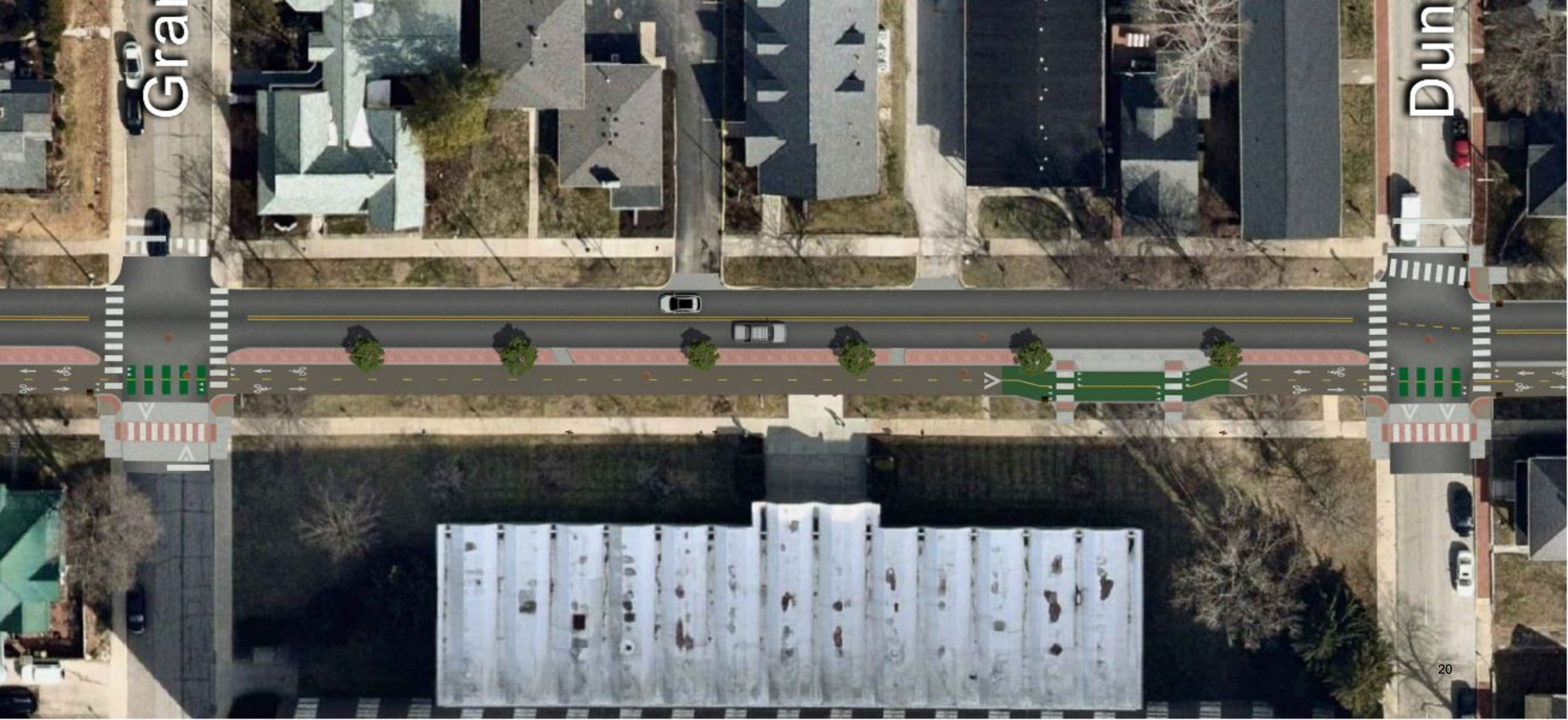
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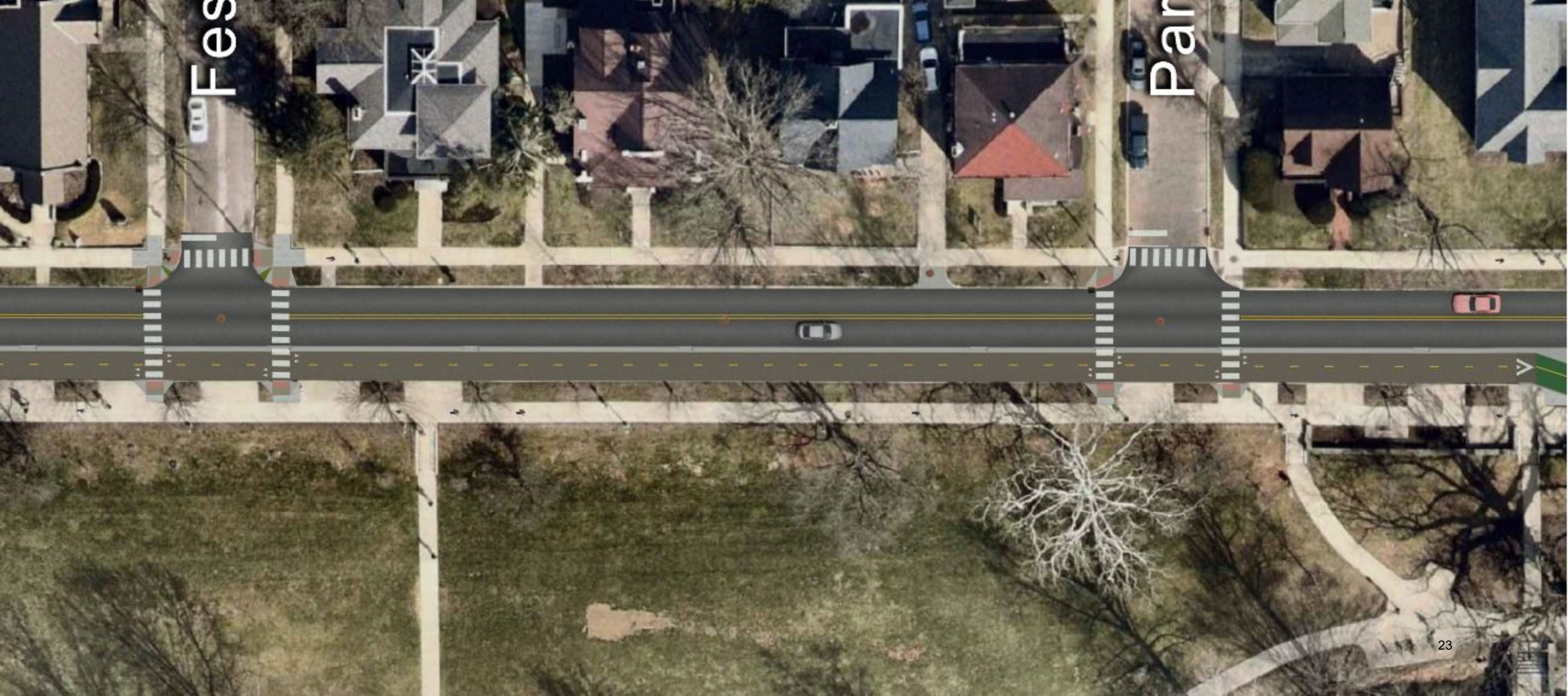
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**TRAFFIC COMMISSION
STAFF REPORT**

CASE #: TC-20-02
DATE: April 9, 2020

FROM: SeyedAmir Kaboli Farshchi, Long Range Planner

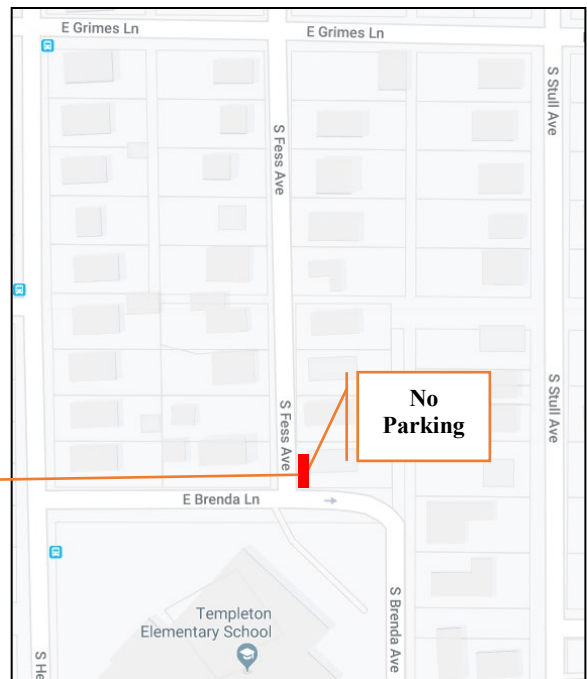
REQUEST: South Fess Avenue Parking Restriction

REPORT

The Planning and Transportation Department received a complaint via uReport regarding changing the on-street parking on South Fess Avenue between E. Brenda Lane and E. Grimes Lane. The Fess Avenue from E. Brenda Lane to 60' north of E. Brenda Lane cannot support parking on both sides due to the street's narrow width, which makes access for emergency vehicles and others challenging. Parking is already restricted on the west side of Fess Avenue from E. Brenda Lane to around 60' north of E. Brenda Lane. Based on the Bloomington Municipal Code 15.32.140, "No person shall park any vehicle upon a street, other than an alley, in such a manner or under such conditions as to have available less than twelve feet of the width of the roadway for free movement of vehicular traffic."

RECOMMENDATIONS

After review and analysis, such as measuring the street width and monitoring the traffic flow in different days, staff recommends reconfiguring the existing on-street parking on South Fess Avenue between E. Brenda Lane and E. Grimes Lane by restricting parking on the east side of Fess Avenue from E. Brenda Lane to 60' north of E. Brenda Lane. If approved, the detailed Title 15 amendment for this request will be forwarded to the Common Council for their consideration.



The above map and photo show Fess Avenue from E. Brenda Lane to E. Grimes Lane with the proposal to restrict parking on the east side of Fess Avenue from E. Brenda Lane to 60' north of E. Brenda Lane due to concerns for emergency vehicle access.